Proposed Distribution Facility Project
7211 and 7219 Morgan Road
Town of Clay, Onondaga County, New York

Exhibit E

Wetlands/Waters Impact Assessment

LANGAN

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Wetlands/Waters Impact Assessment
Proposed Distribution Facility Project
7211 and 7219 Morgan Road
Town of Clay, Onondaga County, New York

Existing Conditions

Langan Engineering and Environmental Services, Inc. (Langan) wetland scientists conducted a delineation of wetlands and surface waters located at the project site in July 2019. The delineation was completed in accordance with federal delineation methodology outlined under the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual and Northcentral and Northeast Regional Supplement. Delineated features onsite include one (1) stream, one (1) pond and twelve (12) wetland features (see Wetlands/Waters Map - Figure E1).

The onsite stream, a Tributary of Onondaga Lake, totals approximately 2,000 linear feet and generally bisects the property from northeast to southwest. The stream channel has been historically modified and is surfaced with rip-rap and concrete. The stream is identified by the New York State Department of Environmental Conservation (NYSDEC) as a Class B water, and is therefore considered a protected stream under the NYSDEC Protection of Waters Program. An irrigation pond totaling approximately 0.5 acres is present along the southern site boundary. The pond appears to be a man-made feature constructed sometime between 1960 and 1966.

The area of wetlands onsite totals approximately 1.1 acres. Onsite wetlands consist of drainage swales and small, fragmented areas of emergent wetlands located within the active golf course and comprised of actively managed turf grass. The majority of wetlands appear to have formed within depressions or are wetlands that may have been historically modified during original construction of the golf course. The wetlands onsite are not mapped by NYSDEC and are not located within close proximity to any NYSDEC-mapped wetlands; therefore, wetlands onsite are regulated only by the USACE.

Wetlands/Waters Impacts

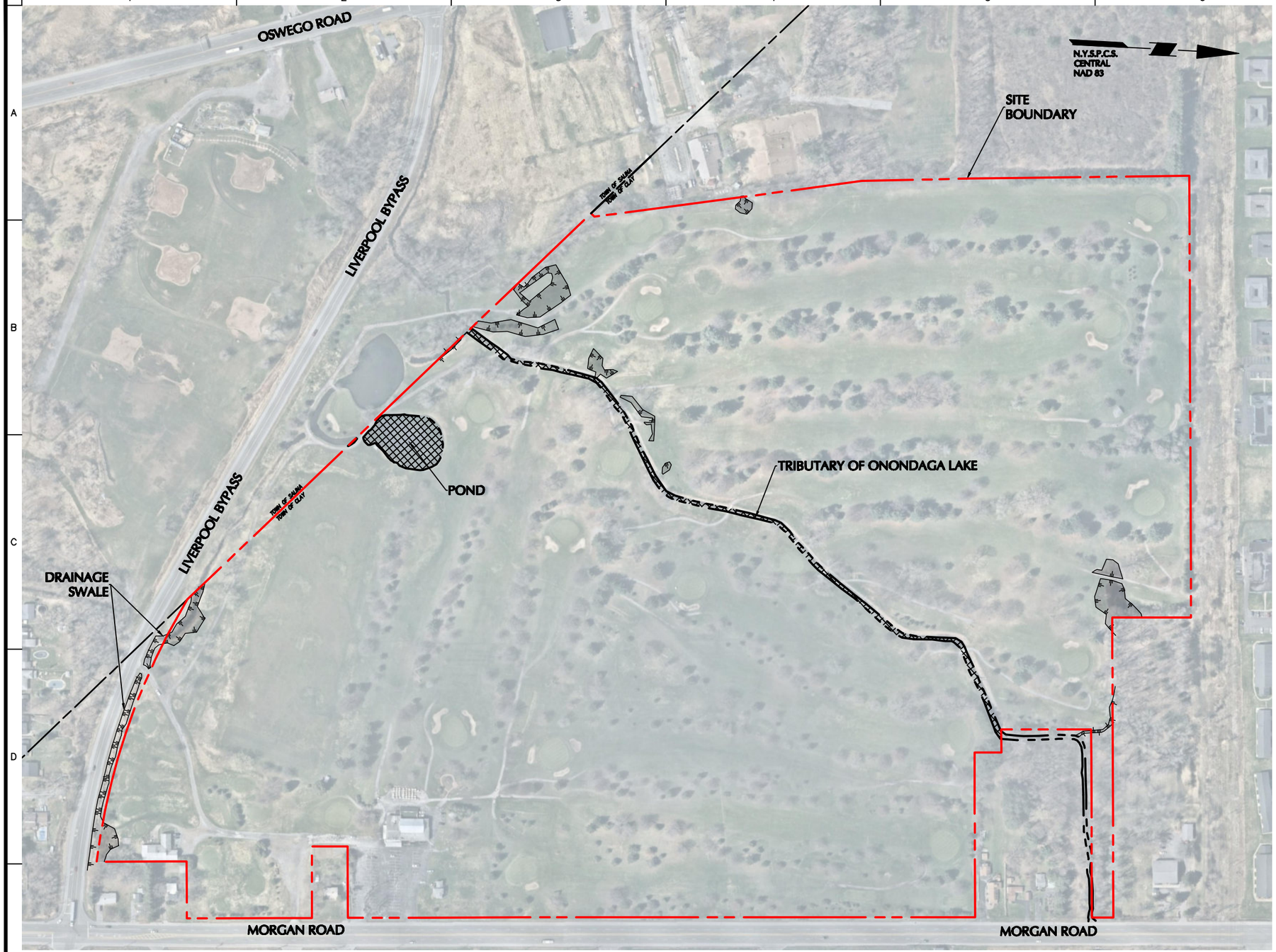
Impacts to wetlands/waters have been avoided and minimized to the maximum extent practicable through an iterative site design process and the use of retaining walls to limit land disturbance within close proximity to wetlands/waters.

The project will result in limited impacts to wetlands/waters necessary for the construction of: two stream crossings required for access to the western portion of the parcel; a culverted access drive to Liverpool Bypass; three stormwater discharge points; and, a small area of land grading near Liverpool Bypass. Wetlands/waters impacts total approximately 4,350 square feet (0.099 acres), which includes approximately 160 linear feet of the stream channel required for the two stream crossings and small portions of the drainage ditch/swale along Liverpool Bypass. Both wetland/water features to be disturbed are of low value due to current conditions, location and historic activities including the placement of rip-rap and concrete along the stream channel.

The stream crossings will be constructed/installed to maintain low flow and aquatic life movement and will also be sized/designed to provide adequate capacity and stability for various flood flows. Additionally, the project has been design with appropriate stormwater management

measures to avoid potential degradation of onsite and downstream surface waters. Based on the low value of onsite resources, limited area of wetlands/waters impacts and incorporated design elements, the proposed stream crossings and small amounts of wetland fill are not expected to result in a detrimental impact on existing resources.

The project has been designed such that it qualifies for USACE Nationwide Permit (NWP) Nos. 7, 14 and 39. The NWP program is intended for activities that have no more than minimal individual and cumulative adverse environmental effects. An application will be submitted to the USACE for issuance of these NWPs seeking authorization of the above-referenced wetland/waters impacts. Additionally, an application will be submitted to the NYSDEC for issuance of an Article 15, Protection of Waters Permit for authorization of the two stream crossings. The project design is consistent with applicable USACE and NYSDEC permit requirements.



LEGEND:

- WETLANDS
- WATERS
- SITE BOUNDARY

NOTE:

1. WETLANDS AND WATERS WERE DELINEATED ONSITE BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. WETLAND SCIENTISTS IN JULY 2019.

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

300 0 150 300

SCALE: 1 INCH = 300 FEET

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ Certificate of Authorization No.24GA27996400

Project
PROPOSED DISTRIBUTION FACILITY PROJECT
SECTION 114, BLOCK No. 1, LOT No. 2.3
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

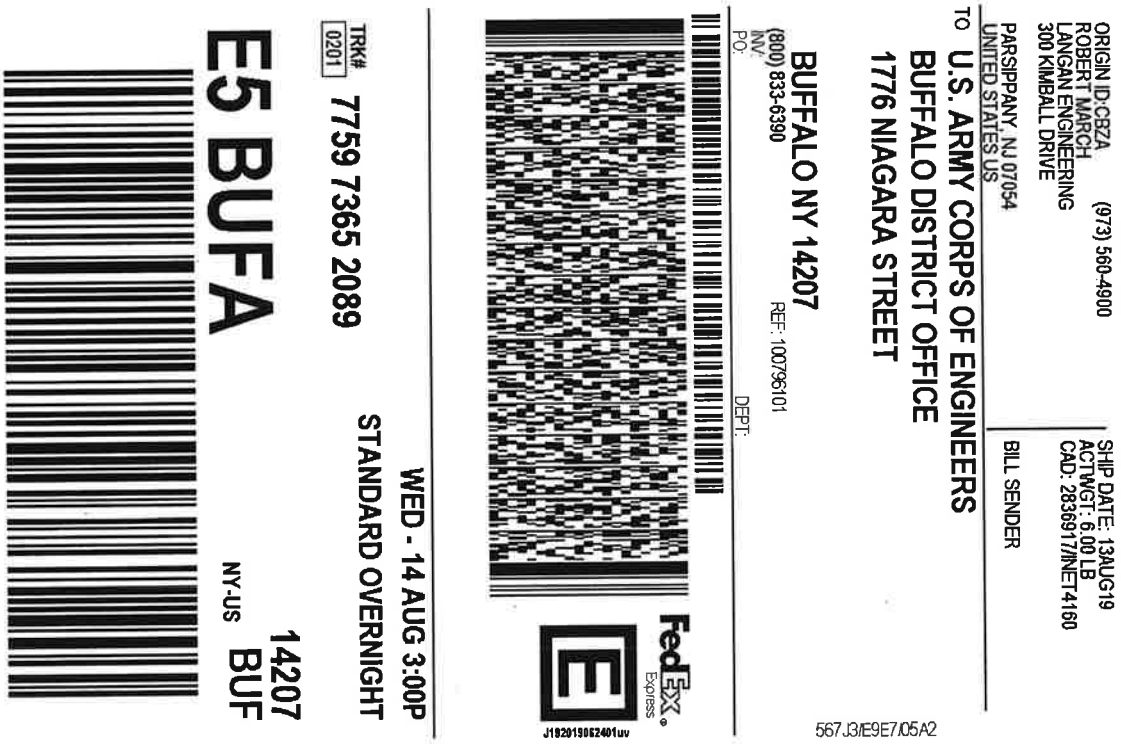
Drawing Title
WETLANDS/WATERS MAP

Project No.	100796101
Date	08/22/2019
Drawn By	AC
Checked By	RM

Drawing No. **E1**

Sheet 1 of 1

Filename: \\langan.com\data\PAR\data1\100796101\Project Data\CAD\01\SheetFiles\Natural Resources\100796101-W-WL100 - Wetlands-Waters Map.dwg Date: 8/26/2019 Time: 14:46 User: jsarabia Style Table: Langan.stb Layout: ANSIB-BL



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APPLICATION FOR:

JURISDICTIONAL DETERMINATION

Section 114, Block 1, Lot 2.3
Town of Clay
Section 24, Block 1, Lots 3.2, 4.2, 37.1 and 37.2
Town of Salina
Onondaga County, New York

Submitted to:

U.S. Army Corps of Engineers, Buffalo District
1776 Niagara Street
Buffalo, New York 14207

New York State Department of Environmental Conservation, Region 7
615 Erie Boulevard West
Syracuse, New York 13204-2400

Prepared For:

TC Syracuse Development Associates, LLC
300 Conshohocken State Road, Suite 250
West Conshohocken, PA 19428

Prepared By:

Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
300 Kimball Drive, 4th Floor
Parsippany, New Jersey 07054

13 August 2019
100796101

LANGAN

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Technical Excellence
Practical Experience
Client Responsiveness

13 August 2019

U.S. Army Corps of Engineers
Buffalo District Office
1776 Niagara Street
Buffalo, NY 14207

New York State Department of Environmental Conservation
Region 7
615 Erie Boulevard West
Syracuse, New York 13204-2400

Re: Jurisdictional Determination Request
Section 114, Block 1, Lot 2.3 – Town of Clay
Section 24, Block 1, Lots 3.2, 4.2, 37.1 and 37.2 – Town of Salina
Onondaga County, New York
Langan Project No. 100796101

Applicant: TC Syracuse Development Associates, LLC
300 Conshohocken State Road, Suite 250
West Conshohocken, PA 19428

To Whom It May Concern:

On behalf of TC Syracuse Development Associates, LLC, Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan), herein requests a Jurisdictional Determination (JD) from the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) to confirm the extent of federal and state regulated wetlands/waters on the above-referenced site. We are seeking USACE concurrence on the jurisdictional limits of federally-regulated waters of the U.S., including wetlands onsite. Additionally, we are requesting NYSDEC concurrence on the absence of state-regulated freshwater wetlands and the jurisdictional limits of 'protected streams' under the NYSDEC Protection of Waters Program.

The site is located at the northwestern intersection of Morgan Road and Liverpool Bypass in the Towns of Clay and Salina, Onondaga County, New York. The is identified on the municipal tax map as Section 114, Block 1, Lot 2.3 in the Town of Clay and Section 24, Block 1, Lots 4.2, 3.2, 37.2, and 37.1 in the Town of Salina. The site currently comprises an 18-hole golf course, driving range and country club, operating as the Liverpool Golf and Public Country Club.

Langan wetland scientists conducted a delineation of wetlands and waters onsite between July 10 and July 12, 2019. Various wetlands/waters have been identified and delineated onsite.

There are no NYSDEC-mapped freshwater wetlands present on or within close proximity to the site. A Tributary of Onondaga Lake generally bisects the site and is identified by NYSDEC as a Class B stream. An overview of the wetlands delineated onsite can be found in Section 2.2 of the application report. A discussion on the jurisdiction of delineated features in regards to USACE jurisdiction can be found in Section 3.0 and NYSDEC jurisdiction in Section 4.0 of this application.

Enclosed please find one complete copy of this Jurisdictional Determination request for each agency including the USACE Jurisdictional Determination Plans (Drawings WL100 – WL104) and the NYSDEC Jurisdictional Determination Plans (Drawings WL200 – WL204) and associated figures, photographs, data sheets and forms. Please refer to the table of contents for the location of specific review items.

If you have any questions regarding this application or require any additional information, please do not hesitate to contact us.

Sincerely,
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C.

Robert March, P.W.S.
Senior Project Scientist

David Charette, P.W.S.
Principal / Vice President

Enclosures
cc: George Laigaie, John Pollock – Trammell Crow Company
Richard Burrow, Trista Kuna, Craig Amundson - Langan

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1.0 SITE LOCATION AND DESCRIPTION

This request for a U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYSDEC) Jurisdictional Determination (JD) was prepared for an approximate ±121.7-acre site located at the northwestern intersection of Morgan Road and Liverpool Bypass in the Town of Clay and Town of Salina, Onondaga County, New York (Figures 1 and 2). The site is currently operating as the Liverpool Golf and Public Country Club and is identified on municipal tax maps as Section 114, Block 1, Lot 2.3 in the Town of Clay and Section 24, Block 1, Lots 3.2, 4.2, 37.2 and 37.1 in the Town of Salina (Figure 3). The site is generally bounded by Morgan Road to the east, Liverpool Bypass to the south, Oswego Road and commercial businesses to the west, and a utility transmission line easement, wooded areas and residences to the north (Figure 4). The approximate center point of the site is 43.1220438° N, -76.2095833° W.

The site is currently composed of an active 18-hole public golf course, driving range and practice area that contains cart paths and footbridges throughout the property. A two-story club house, asphalt parking lot and a maintenance barn are present in the southeastern portion of the site, near Morgan Road. The majority of the site contains maintained turf grass associated with the golf course; however, trees are present between fairways and generally along the site perimeter (Figure 4). Photographs and a Photograph Location Map of the site are provided in Appendix A.

Per the NYSDEC Freshwater Wetlands and Waters Map, a Tributary of Onondaga Lake is located onsite which generally bisects the property from northeast to southwest (Figure 5). According to NYSDEC Surface Water Classifications, this stream is classified as "Class B – Fresh Surface Water". The Tributary of Onondaga Lake appears to be a Relatively Permanent Water (RPW) as flow is year-round or continuous at least seasonally. There are no NYSDEC freshwater wetlands mapped onsite. The nearest mapped wetland is identified as "SYW-3", mapped approximately 1,500 feet south of the site (Figure 5).

The United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Map identifies forested wetlands in the southwestern portion of the site (PFO1E - palustrine forested broad-leaved deciduous seasonally flooded/saturated) and ponds also in the southern portion of the site (PUBHh – Palustrine unconsolidated bottom permanently flooded diked/impounded) (Figure 6). In addition, there are two riverine wetlands mapped, one in the southern portion of the site and one that bisects the site from northeast to southwest (R4SBC – Riverine intermittent streambed seasonally flooded and R5UBH – Riverine unknown perennial unconsolidated bottom permanently flooded).

As shown on the Federal Emergency Management Agency (FEMA) Effective Flood Insurance Rate Map (FIRM), the southwestern portion of the site is mapped within the 100-year floodplain associated with the Tributary of Onondaga Lake (Figure 7). The mapped 100-year floodplain onsite ranges from elevation 398 (NAVD 88) to 399 (NAVD 88). The limit of detailed study from FEMA terminates at the Town of Clay municipal boundary and does not include the northern portion of the site.

The Natural Resources Conservation Service (NRCS) Soils Map for Onondaga County, NY identifies eleven soil map units onsite: Arkport very fine sandy loam, 2 to 6 percent slopes (ArB); Cut and Fill Land (CFL); Lairdsville silt loam, 2 to 6 percent slopes (LaB); Lakemont silty clay loam, 0 to 3 percent slopes (Lk); Lockport and Brockport silty clay loams, 0 to 6 percent slopes (LvB); Niagara silt loam, 0 to 4 percent slopes (NgA); Ontario loam, 3 to 8 percent slopes (OgB); Palms Muck (Pb); Rhinebeck silt loam (Rh); Wayland soils complex, 0 to 3 percent slopes, frequently flooded (Wn); and, Williamson silt loam, 2 to 6 percent slopes (WwB) (Figure 8). According to the Natural Resources Conservation Service (NRCS) "National List of Hydric Soils of the United States", the soil map units Lk, Wn, and Pb are classified as hydric soils.

2.0 WETLAND IDENTIFICATION AND DESCRIPTION

2.1 Methodology

The methodology used by Langan to evaluate wetlands and waters of the U.S. onsite is consistent with Federal delineation methodology, including the USACE guidelines as specifically referenced in the *1987 Corps of Engineers Wetlands Delineation Manual* and the *2012 Northcentral and Northeast Regional Supplement (Version 2.0)*. This methodology utilizes a three parameter approach to identifying and delineating wetlands and requires a field evaluation of the three parameters to determine if an area is a wetland. The dominance of hydrophytic vegetation, the presence of suitable wetland hydrology, and hydric soils are required for a positive determination. Observations for each of these parameters are discussed below and provided on the field data sheets included in Attachment A.

2.2 Field Observations

Langan wetland scientists conducted a delineation of wetlands and waters on the property between July 10 and July 12, 2019. Delineated features onsite include thirteen (13) wetlands, one (1) stream and two (2) ponds. Below is a summary of the wetlands delineated onsite. The limits of each feature described below are identified on the USACE Jurisdictional Determination Plans (Drawings WL100 – WL104) and NYSDEC Jurisdictional Determination Plans (Drawings WL200 – WL204).

- Stream A (Tributary of Onondaga Lake) – a rip-rap/concrete lined stream that bisects the property, running northeast to southwest;
- Wetland B – an emergent wetland ditch/swale located in the southeastern portion of the site that contains scattered trees;
- Wetland C – an emergent wetland ditch/swale located along the southern property boundary that contains scattered trees;
- Pond D – irrigation pond;
- Wetland E – an emergent/forested wetland adjacent to Stream A, located in the southwestern portion of the site;
- Pond F – irrigation pond;
- Wetland G – an emergent/forested wetland located in the southwestern portion of the site;
- Wetlands H, I, J, K, and L – emergent wetlands located within turf grass areas, west of Stream A;
- Wetland M – an emergent/forested wetland located along the northern property boundary;
- Wetland N – an emergent wetland located within a turf grass area along the northern property boundary;
- Wetland O – an emergent wetland swale located in the northeastern portion of the site; and,
- Wetland P – an emergent wetland located along the western property boundary.

A summary description of the delineated wetlands and waters is provided below. The location and extent of jurisdictional wetlands and non-jurisdictional wetlands are presented respectively on the Overall USACE Jurisdictional Plan (Drawing WL100) and the Overall NYSDEC Jurisdictional Determination Plan (Drawing WL200). A description of the soils, vegetation, and hydrology can be found on the field data sheets provided in Attachment A.

Stream A – Tributary of Onondaga Lake

Stream A is a concrete/rip-rap lined RPW which generally bisects the property, flowing southwesterly from the northeast to the southwest corner of the site. The stream continues offsite paralleling Liverpool Bypass along the southern site boundary and is eventually culverted beneath Oswego Road. Per the NYSDEC Freshwater Wetlands and Waters Map, Stream A is known as a Tributary of Onondaga Lake. According to NYSDEC Surface Water Classifications, this stream is classified as "Class B – Fresh Surface Water".

Wetland B – Wetland Ditch/Swale

Wetland B is a drainage ditch/swale situated in the southeastern portion of the site, paralleling the Liverpool Bypass along the southern property boundary. The

wetland is dominated by emergent vegetation. Wetland B drains westerly and has a hydrologic connection to Wetland C via a culvert beneath a gravel access road.

Vegetation – The majority of Wetland B is dominated by emergent vegetation consisting of common reed (*Phragmites australis*). Non-dominant species include narrowleaf cattail (*Typha angustifolia*), jewelweed (*Impatiens capensis*) and smartweed (*Persicaria* spp.). The southeastern corner of the wetland includes some scattered pin oak (*Quercus palustris*) and boxelder (*Acer negundo*) individuals.

Hydrology – The primary source of hydrology in Wetland B appears to be surface water runoff from the adjacent roadway and upstream drainage network. Wetland B drains westerly and has a hydrologic connection to Wetland C via a 24-inch culvert beneath a gravel access road. Indicators of wetland hydrology observed during the site inspection include: 6" – 10" of standing water, soil saturation at the surface, water marks, sediment deposits, drift deposits, inundation visible on aerial imagery, drainage patterns and microtopographic relief.

Soils – Hydric soils within Wetland B are generally characterized by an 'A' horizon comprised of silty clay with a Munsell Soil color of 7.5YR 3/2 in the matrix with approximately 6% redoximorphic concentrations (mottles) of 7.5YR 4/4. The 'B1' horizon is characterized as silty clay with a Munsell Soil color of 7.5YR 5/2 in the matrix with approximately 12% redoximorphic concentrations (mottles) of 7.5YR 5/8. The 'B2' horizon is characterized as silty sand with a Munsell Soil color of 2.5Y 5/2 in the matrix with approximately 20% redoximorphic concentrations (mottles) of 2.5Y 5/6. Indicators of hydric soils include a depleted matrix and a redox dark surface.

<u>Wetland C – Wetland Ditch/Swale</u>

Wetland C is a drainage ditch/swale situated in the southern portion of the site, paralleling the Liverpool Bypass along the southern property boundary. This feature is dominated by emergent vegetation. Wetland C drains westerly toward Pond D (an irrigation pond) and is connected via culvert beneath a gravel cart path.

Vegetation – The majority of Wetland C is dominated by emergent vegetation consisting of common reed. Non-dominants include swamp thistle (*Cirsium muticum*), rough avens (*Geum laciniatum*), swamp milkweed (*Asclepias incarnata*), maintained (mowed) grasses (*Fescue* spp.), jewelweed and narrowleaf cattail. Throughout the wetland are some scattered eastern cottonwood (*Populus deltoides*) and willow oak (*Quercus phellos*) individuals.

Hydrology – The primary source of hydrology in Wetland C appears to be surface water runoff from the adjacent roadway and the upstream drainage network. Wetland C drains westerly toward Pond D (irrigation pond) and is connected via a 36-inch corrugated metal pipe (CMP) culvert beneath a gravel cart path. Indicators of wetland hydrology observed during the site inspection include: 6" – 10" of standing water, soil saturation at the surface, water marks, sediment deposits, drift deposits, inundation visible on aerial imagery, drainage patterns and microtopographic relief.

Soils – Hydric soils within Wetland C are generally characterized by an 'Oe' horizon comprised of a silty/organic texture with a Munsell Soil color of 10YR 2/1 in the matrix. The 'A' horizon is characterized by aquic silty muck soils with a Munsell Soil color of 10YR 2/1 in the matrix. Indicators of hydric soils include black histic soils.

Ponds D and F (Irrigation Ponds)

Ponds D and F are open water irrigation ponds located in the southwestern portion of the site. Based on a review of historic aerial photographs, these features appear to be man-made ponds constructed between 1960 and 1966. The ponds are hydrologically connected to the Tributary of Onondaga Lake to the north.

Vegetation – The ponds are open water features surrounded on all sides by turf grass and/or gravel cart paths.

Hydrology – Ponds D and F appear to be hydrologically driven by the upstream drainage network (Wetlands B and C) and groundwater. The ponds are hydrologically connected to the Tributary of Onondaga Lake to the north.

Soils – Ponds D and F contain silty muck soils with a Munsell Soil color of 10YR 2/1 in the matrix.

Wetland E

Wetland E is comprised of a palustrine forested/emergent wetland situated adjacent to the Tributary of Onondaga Lake (Stream A), near the southwestern property boundary. The wetland contains areas of a forested overstory with a dense emergent understory.

Vegetation – The forested/emergent portion of Wetland E is dominated by a forested overstory of green ash (*Fraxinus pennsylvanica*) and a dense understory of lizard's tail (*Saururus cernuus*) and swamp goldenrod (*Solidago patula*). Non-dominants include common reed, jewelweed, gray's sedge (*Carex grayi*), green bulrush (*Scirpus atrovirens*) and poison ivy (*Toxicodendron radicans*).

Hydrology – The primary source of wetland hydrology in Wetland E appears to be streamflow and occasional floodwaters from the Tributary of Onondaga Lake (Stream A). A secondary source of hydrology in Wetland E is attributed to surface water runoff from the adjacent roadway and surrounding uplands. Indicators of wetland hydrology observed during the site inspection include: 6" – 10" of standing water, soil saturation at the surface, water marks, sediment deposits, drift deposits, inundation visible on aerial imagery, drainage patterns and microtopographic relief.

Soils – Hydric soils within the forested portion of Wetland E are generally characterized by an 'A' horizon comprised of silty clay with a Munsell soil color of 10YR 3/2 in the matrix with approximately 12% redoximorphic concentrations (mottles) of 10YR 5/6. The 'B' horizon is characterized by clay with a Munsell soil color of 10YR 4/1 in the matrix with approximately 12% redoximorphic concentrations (mottles) of 10YR 5/6. Indicators of hydric soils include a depleted matrix and a redox dark surface.

Wetlands H, I, J, K and L

Wetlands H, I, J, K and L are situated in the southern portion of the site, located west of the Tributary of Onondaga Lake (Stream A). The wetlands are located within or adjacent to the fairways of the golf course. These wetlands contain a surface water connection to Stream A via drainage pipes or as evidenced by overland flow.

Vegetation – Wetlands H, I, J, K and L are dominated by turf grass. Non-dominants include white clover (*Trifolium repens*) and common plantain (*Plantago major*).

Hydrology – The primary source of wetland hydrology in Wetlands H, I, J, K and L appears to be surface water runoff from surrounding upland areas. These wetlands contain a surface water connection to Stream A via drainage pipes or as evidenced by overland flow. Indicators of wetland hydrology observed during the site inspection include: soil saturation at the surface, water marks, sediment deposits, a sparsely vegetated concave surface, drainage patterns and microtopographic relief.

Soils – Hydric soils within Wetlands H, I, J, K and L are variable in soil texture and color. Refer to the data sheets in Attachment A for specific soil characterization.

Wetland M – Emergent/Forested Wetland

Wetland M is situated in the northern portion of the site, along the northern property boundary. The wetland is primarily dominated by emergent vegetation,

but includes forested vegetation as it continues offsite to the northeast. Wetland M appears to be isolated from other wetlands/waters.

Vegetation – The majority of Wetland M is dominated by emergent vegetation that includes American mannagrass (*Glyceria grandis*) and common spikerush (*Eleocharis palustris*). Non-dominant vegetation includes maintained grasses (mowed) (*Fescue* spp.) and pickerelweed (*Pontederia cordata*). Forested vegetation includes red maple (*Acer rubrum*). Other non-dominant vegetation consists of eastern cottonwood (*Populus deltoides*) and silver maple (*Acer saccharinum*).

Hydrology – The primary source of wetland hydrology in Wetland M appears to be surface water runoff from surrounding upland areas. The wetland appears to be an isolated depression with no evident surface water connection to any other wetlands/waters. Indicators of wetland hydrology observed during the site inspection include: 4 – 6 inches of standing water, soil saturation at the surface, water marks, sediment deposits, inundation visible on aerial imagery, water-stained leaves, aquatic fauna and microtopographic relief.

Soils – Hydric soils within Wetland M are generally characterized by an 'A' horizon comprised of clay with a Munsell Soil color of 10YR 4/2 in the matrix with approximately 12% redoximorphic concentrations (mottles) of 10YR 5/6. The 'B' horizon is characterized by clay with a Munsell Soil color of 10YR 3/1 in the matrix with approximately 15% redoximorphic concentrations (mottles) of 10YR 5/6. Indicators of hydric soils include a depleted matrix and a redox dark surface.

<u>Wetland N – Emergent Wetland</u>

Wetland N is situated in the northern portion of the site, near Wetland M. Wetland N is comprised of maintained lawn (mowed) located adjacent to a tee box of the golf course. Wetland N is separated from Wetland M by a gravel cart path. Wetland N appears to be isolated from other wetlands/waters.

Vegetation – Wetland N is dominated by maintained lawn (mowed) vegetation that includes *Fescue* spp.

Hydrology – The primary source of wetland hydrology in Wetland N appears to be surface water runoff from surrounding upland areas. The wetland appears to be an isolated depression with no evident surface water connection to any other wetlands/waters. Indicators of wetland hydrology observed during the site inspection include: water marks, sediment deposits, sparsely vegetated concave surface, water-stained leaves, surface soil cracks and microtopographic relief.

Soils – Hydric soils within Wetland N are generally characterized by an 'A' horizon comprised of silty clay with a Munsell Soil color of 7.5YR 4/2 in the matrix with approximately 15% redoximorphic concentrations (mottles) of 7.5YR 4/6. The 'B' horizon is characterized by silty clay with a Munsell Soil color of 7.5YR 3/1 in the matrix with approximately 20% redoximorphic concentrations (mottles) of 7.5YR 5/6. Indicators of hydric soils include a depleted matrix and a redox dark surface.

Wetland O – Emergent Wetland Swale

Wetland O is an emergent wetland swale located in the eastern portion of the site near the northeastern property boundary. Wetland O is comprised of maintained lawn (mowed) but also includes herbaceous wetland vegetation. Wetland O transitions into a forested wetland offsite to the north.

Vegetation – Wetland O is dominated by maintained lawn (mowed) vegetation that includes *Fescue* spp. Additional herbaceous wetland vegetation includes sedges.

Hydrology – The primary source of hydrology in Wetland O appears to be surface water runoff from surrounding upland areas. Wetland O appears to drain southerly via overland flow directly into the Tributary of Onondaga Lake (Stream A). Indicators of wetland hydrology observed during the site inspection include: standing water, drainage patterns and microtopographic relief.

Soils – Hydric soils within Wetland O are generally characterized by an 'A' horizon comprised of silty clay with a Munsell Soil color of 7.5YR 4/2 in the matrix with approximately 10% redoximorphic concentrations (mottles) of 7.5YR 5/6. The 'B' horizon is characterized by silty clay with a Munsell Soil color of 7.5YR 3/1 in the matrix with approximately 15% redoximorphic concentrations (mottles) of 7.5YR 5/6. Indicators of hydric soils include a depleted matrix and a redox dark surface.

Wetland P – Emergent Wetland

Wetland P appears to be an isolated feature situated along the western property boundary. Wetland P is comprised of a mix of maintained lawn (mowed) and emergent wetland vegetation.

Vegetation – Wetland P is dominated by maintained lawn (mowed) vegetation that includes *Fescue* spp. Additional herbaceous wetland vegetation includes narrowleaf cattail, pickerel weed, sensitive fern (*Onoclea sensibilis*), skunk cabbage (*Symplocarpus foetidus*) and swamp goldenrod.

Hydrology – The primary sources of hydrology in Wetland P appear to be surface water runoff from surrounding upland areas and groundwater. Wetland P appears to be isolated from other wetlands/waters. Indicators of wetland hydrology observed during the site inspection include: 4 – 6 inches of standing water, water marks, sediment deposits, inundation visible on aerial imagery, water-stained leaves and microtopographic relief.

Soils – Hydric soils within Wetland P are generally characterized by an 'A' horizon comprised of silty clay with a Munsell Soil color of 7.5YR 4/2 in the matrix with approximately 15% redoximorphic concentrations (mottles) of 7.5YR 4/6. The 'B' horizon is characterized by silty clay with a Munsell Soil color of 7.5YR 3/1 in the matrix with approximately 20% redoximorphic concentrations (mottles) of 7.5YR 5/6. Indicators of hydric soils include a depleted matrix and a redox dark surface.

3.0 USACE CLASSIFICATION

Stream A (Tributary of Onondaga Lake) appears to be a RPW as flow occurs year-round or continuous at least seasonally. Stream A drains southwesterly across the property and then continues westerly, paralleling Liverpool Bypass and eventually beneath Oswego Road at the southwestern property corner via a concrete box culvert. The Tributary of Onondaga Lake continues offsite for approximately 1.4 miles, eventually to the confluence of Onondaga Lake, a Traditional Navigable Water (TNW).

As discussed above in Section 2.2, Wetlands B, C, E, G, H, I, J, K, L and O and Ponds D and F contain a surface water connection to the Tributary of Onondaga Lake (Stream A) either by means of a direct surface water connection, stormwater inlet/drainage pipe or overland flow as evidenced by drainage patterns. As such, these waters of the U.S., including wetlands, are jurisdictional waters, regulated by the USACE under Section 404 of the Clean Water Act.

Wetlands M, N and P do not contain a surface water connection to the Tributary of Onondaga Lake (Stream A) or any other wetlands or waters. Under current USACE guidance for New York State (2015 Clean Water Rule), non-adjacent wetlands located greater than 100 feet from a traditional navigable water or tributary and outside the floodplain associated with any regulated water is deemed non-jurisdictional by the USACE unless determined through a case-specific analysis that the wetland significantly affects the chemical, physical or biological integrity of traditional navigable waters, interstate waters or the territorial seas. Wetlands M, N and P are isolated features that do not have a surface water connection to any adjacent wetlands or streams, are located greater than 100 feet from any traditional navigable water or tributary and situated outside the floodplain associated with any other regulated water. As such, Wetlands M, N and P appear to be non-jurisdictional features that do not meet the definition of waters of the U.S.

The limits of USACE jurisdictional wetlands and waters are depicted on the USACE Jurisdictional Determination Plans (Drawings WL100 – WL104).

4.0 NYSDEC CLASSIFICATION

Freshwater Wetlands

Pursuant to Section 24-0107 of the NYSDEC Freshwater Wetlands Act, "freshwater wetlands" means lands and waters of the state as shown on the NYSDEC Freshwater Wetlands Map which contain any or all of various types of wetlands listed at Section 24-0107(1)(a). As shown on the NYSDEC Freshwater Wetlands and Waters Map (Figure 5), there are no NYSDEC freshwater wetlands mapped onsite. The nearest mapped wetland is identified as "SYW-3", mapped approximately 1,500 feet south of the site. As such, the wetlands present onsite are not subject to NYSDEC jurisdiction under the NYSDEC Freshwater Wetlands Act.

Protection of Waters

Per the NYSDEC Freshwater Wetlands and Waters Map, a Tributary of Onondaga Lake is located onsite which bisects the property, flowing southwesterly from the northeast corner to the southwest corner. According to NYSDEC Surface Water Classifications, this stream is classified as "Class B – Fresh Surface Water" (Figure 5). Pursuant to *6 CRR-NY 608.1(aa)*, protected streams include those with a classification of AA, AA(t), A, A(t), B, B(t) or C(t). Thus, the Tributary of Onondaga Lake (Class B) is considered a protected stream subject to NYSDEC jurisdiction under the Protection of Waters Program. The jurisdictional limits of the Tributary of Onondaga Lake (Stream A) are identified on the NYSDEC Jurisdictional Determination Plans (Drawings WL200 – WL204).

5.0 CONCLUSION

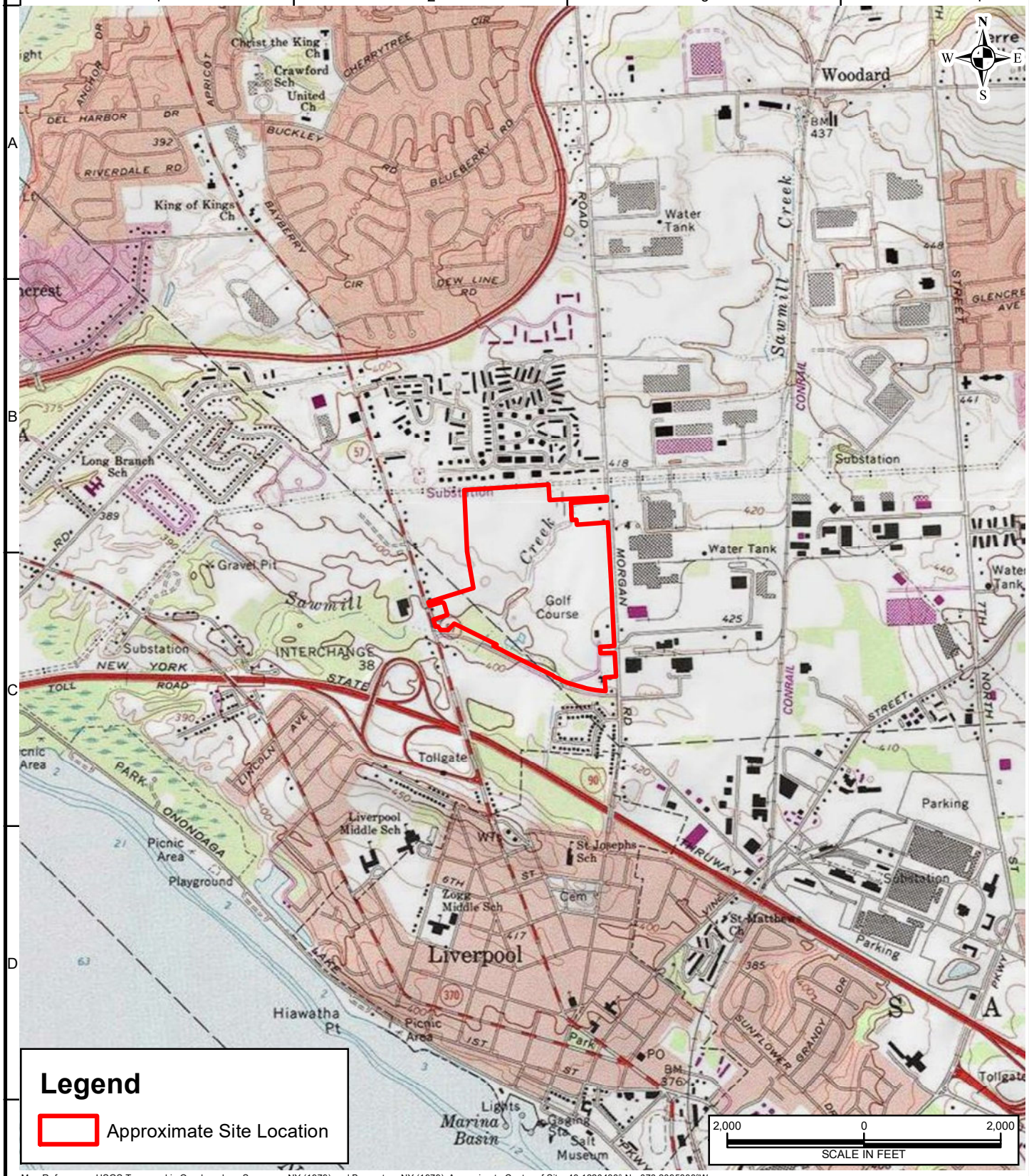
As documented in this report, a delineation of jurisdictional wetlands and waters was completed by Langan wetland scientists in accordance with federal wetland delineation methodologies between July 10 and July 12, 2019. As shown on the USACE and NYSDEC Jurisdictional Determination Plans (Drawings WL100 – WL104 and WL200 – WL204 respectively), and as discussed in this report, the site includes thirteen (13) wetlands, two (2) ponds and one (1) stream. With exception to Wetlands M, N and P, all wetlands and waters delineated onsite are subject to USACE jurisdiction. Due to the isolated, non-adjacent nature of Wetlands M, N and P, we expect that these wetlands are non-jurisdictional.

Based on the absence of NYSDEC mapped freshwater wetlands, we do not expect the delineated wetlands onsite will be subject to NYSDEC jurisdiction under the NYSDEC Freshwater Wetlands Act. The Tributary of Onondaga Lake is identified by NYSDEC as a Class B stream. As such, as shown on the NYSDEC Jurisdictional Determination Plans (Drawings WL200 – WL204), the onsite reach of the Tributary of Onondaga Lake is

regulated by NYSDEC under the Protection of Waters Program.

We are requesting issuance of a Jurisdictional Determination from the USACE and NYSDEC confirming the limits of wetland/waters jurisdiction onsite as shown on the USACE and NYSDEC Jurisdictional Determination Plans (Drawings WL100 – WL104 and WL200 – WL204 respectively).

FIGURES



Map References: USGS Topographic Quadrangles - Syracuse, NY (1979) and Brewerton, NY (1979). Approximate Center of Site: 43.1220438° N, -076.2095833°W

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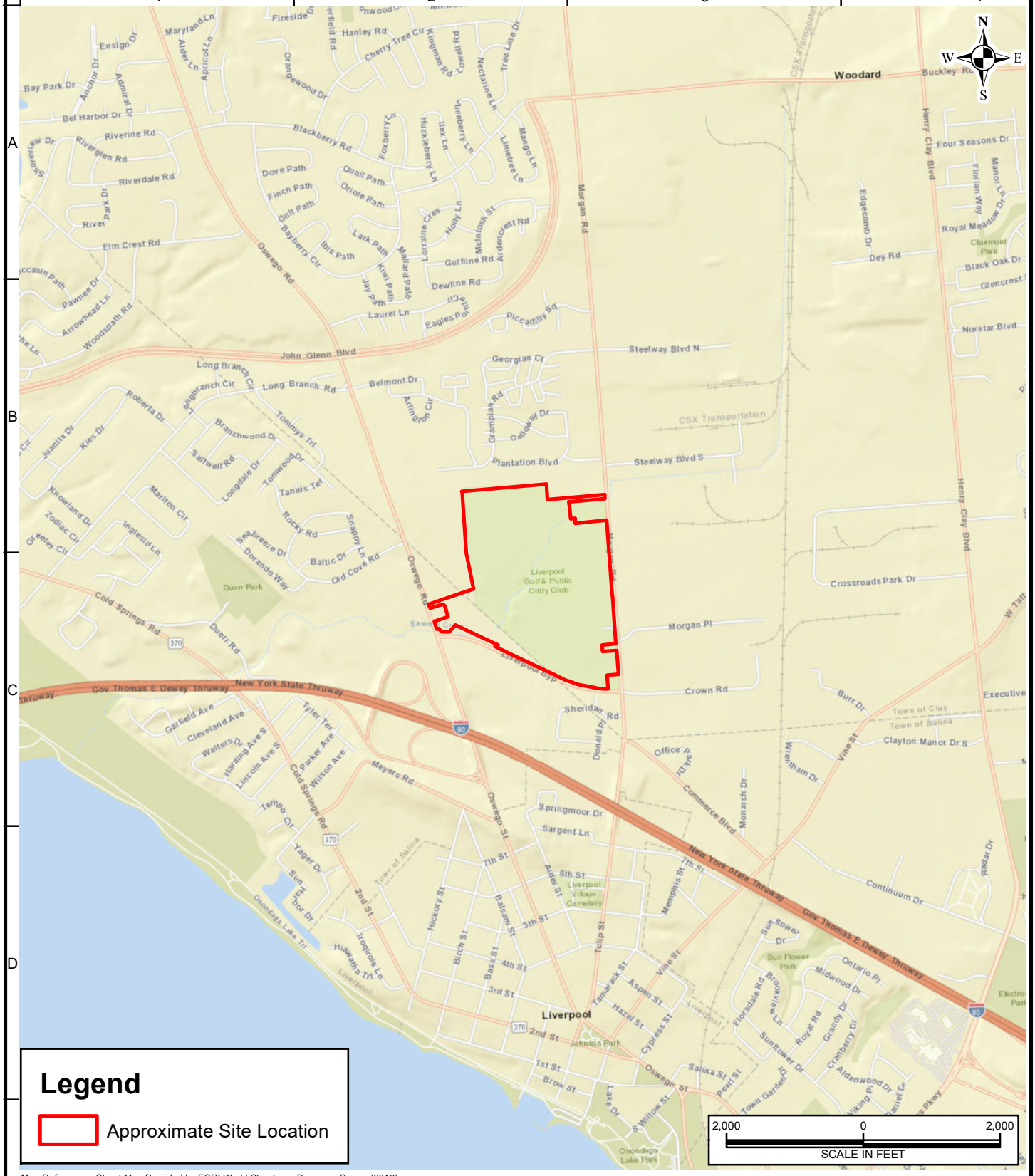
Project
PROJECT EAGLE
TOWN OF CLAY
TOWN OF SALINA
ONONDAGA COUNTY NEW YORK

Drawing Title
USGS SITE LOCATION MAP

Project No. 100796101	Figure 1
Date 07/26/2019	
Scale 1" = 2,000'	
Drawn By MAD	

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 1 - USGS Site Location Map.mxd



Legend

Approximate Site Location

Map References: Street Map Provided by ESRI World Streetmap Basemap Server (2019)

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Drawing Title
VICINITY MAP

Project No. 100796101	Figure 2
Date 07/26/2019	
Scale 1" = 2,000'	
Drawn By MAD	

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 2 - Vicinity Map.mxd

Map References: Syracuse- Onondaga County GIS on the Web, Accessed on 6-28-2019

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ONONDAGA COUNTY NEW YORK

Drawing Title
TAX MAP

Project No.	100796101
Date	07/26/2019
Scale	1" = 500'
Drawn By	MAD
Figure	3

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 3 - Tax Map.mxd

Map References: NYSDEC Orthoimagery (2018)

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Project
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Drawing Title
SITE AERIAL PHOTOGRAPH

Project No.	100796101
Date	07/26/2019
Scale	1" = 500'
Drawn By	MAD
Figure	4

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 4 - Site Aerial Photograph.mxd

Map References: New York State Department of Environmental Conservation - Regulatory Freshwater Wetlands - NYS - (2010), Publication (2013); NYSDEC Water Quality Classifications, (2010); NYSDEC Orthoimagery (2018)

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Project
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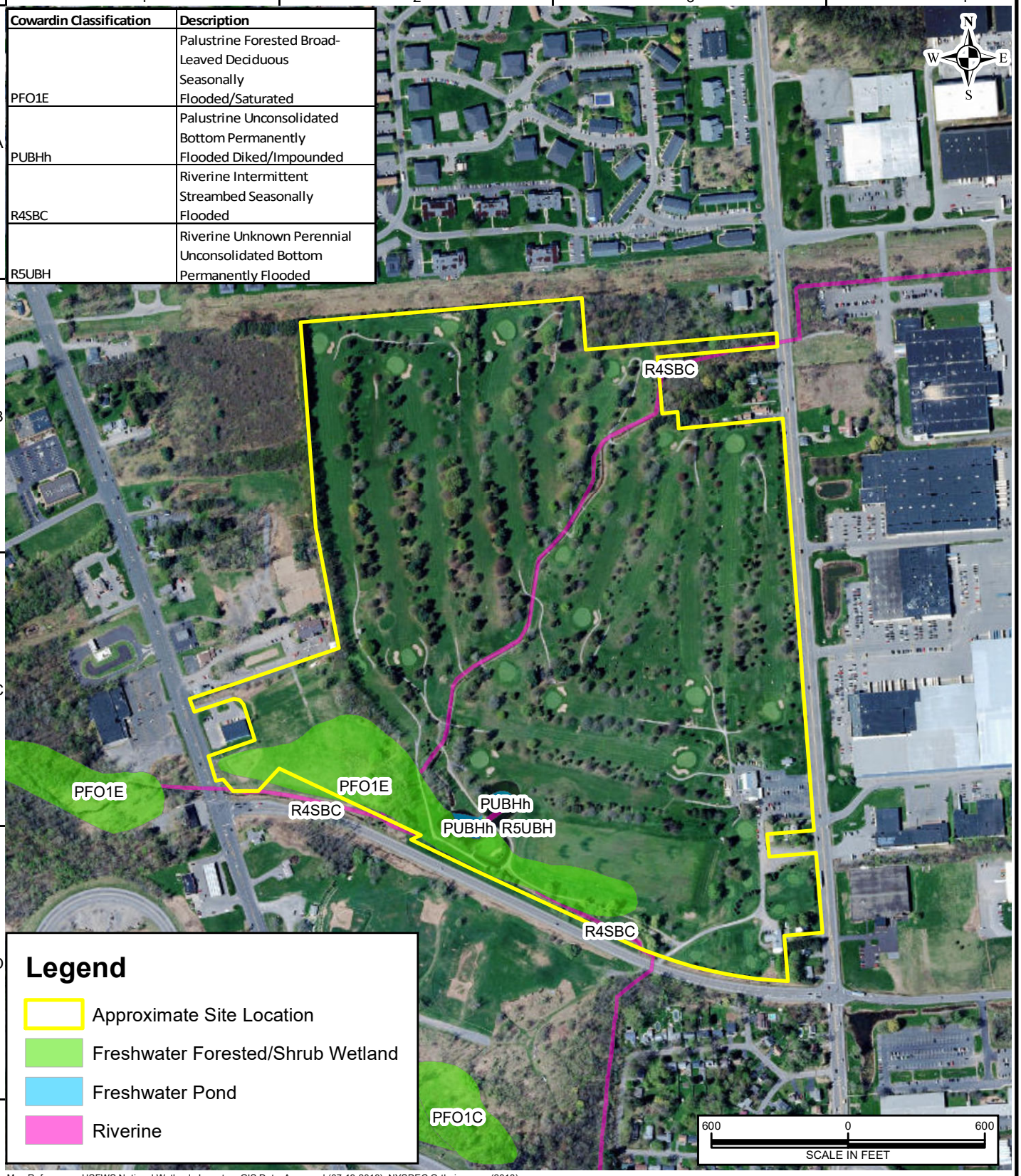
ONONDAGA COUNTY NEW YORK

Drawing Title
NYSDEC FRESHWATER WETLANDS AND WATERS MAP

Project No. 100796101	Figure 5
Date 07/26/2019	
Scale 1" = 1,000'	
Drawn By MAD	

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 5 - NYSDEC Freshwater Wetlands and Waters Map.mxd

Cowardin Classification	Description
PFO1E	Palustrine Forested Broad-Leaved Deciduous Seasonally Flooded/Saturated
PUBHh	Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded
R4SBC	Riverine Intermittent Streambed Seasonally Flooded
R5UBH	Riverine Unknown Perennial Unconsolidated Bottom Permanently Flooded



Map References: USFWS National Wetlands Inventory GIS Data, Accessed (07-19-2019); NYSDEC Orthoimagery (2018)

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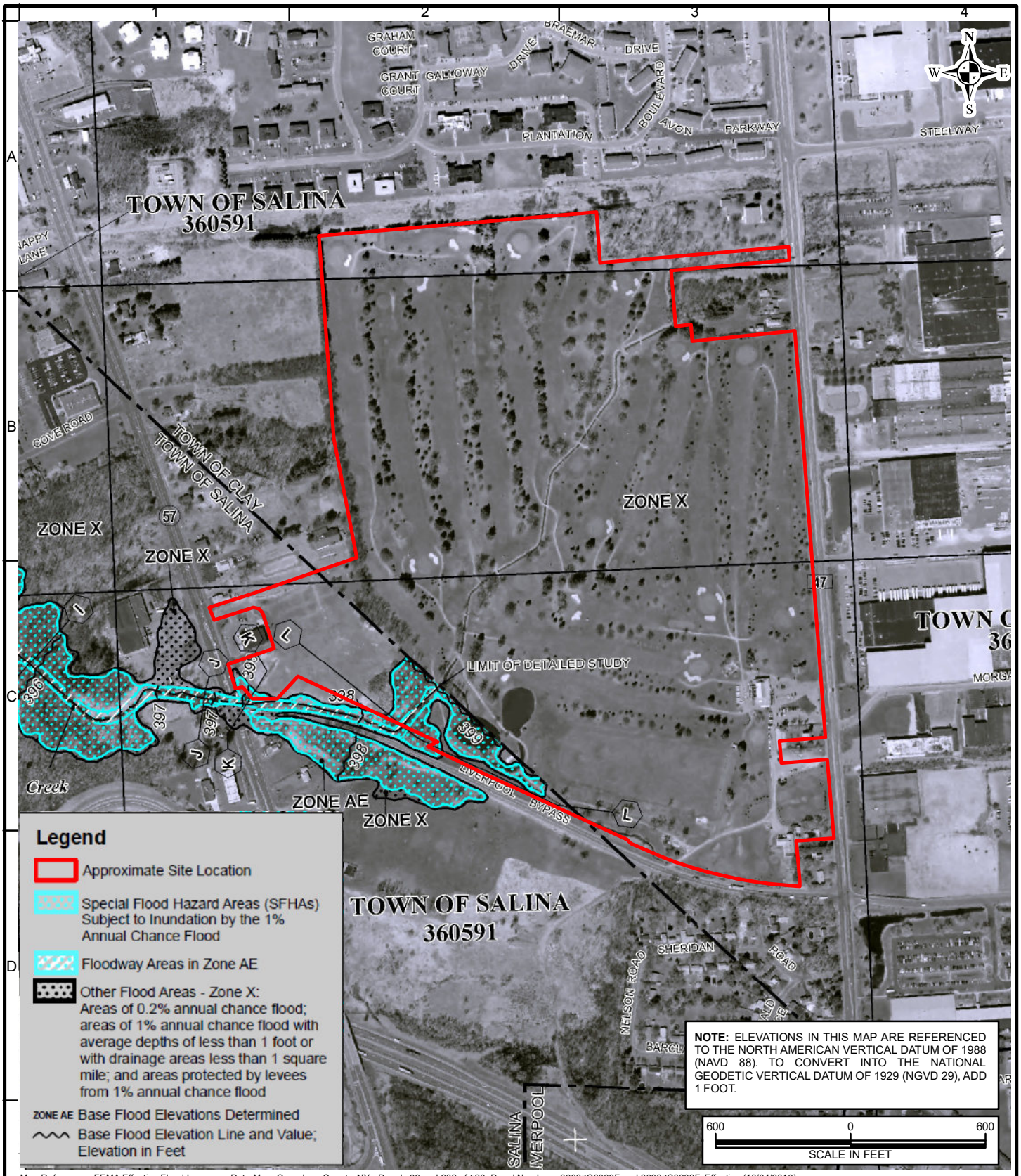
Drawing Title
USFWS NATIONAL WETLANDS INVENTORY MAP

Project No. 100796101
Date 07/26/2019
Scale 1" = 600'
Drawn By MAD
Figure 6

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 6 - USFWS NWI Map.mxd



Map References: FEMA Effective Flood Insurance Rate Map, Onondaga County, NY - Panels 89 and 202 of 520, Panel Numbers: 36067C0089F and 36067C0202F, Effective (10/04/2016)

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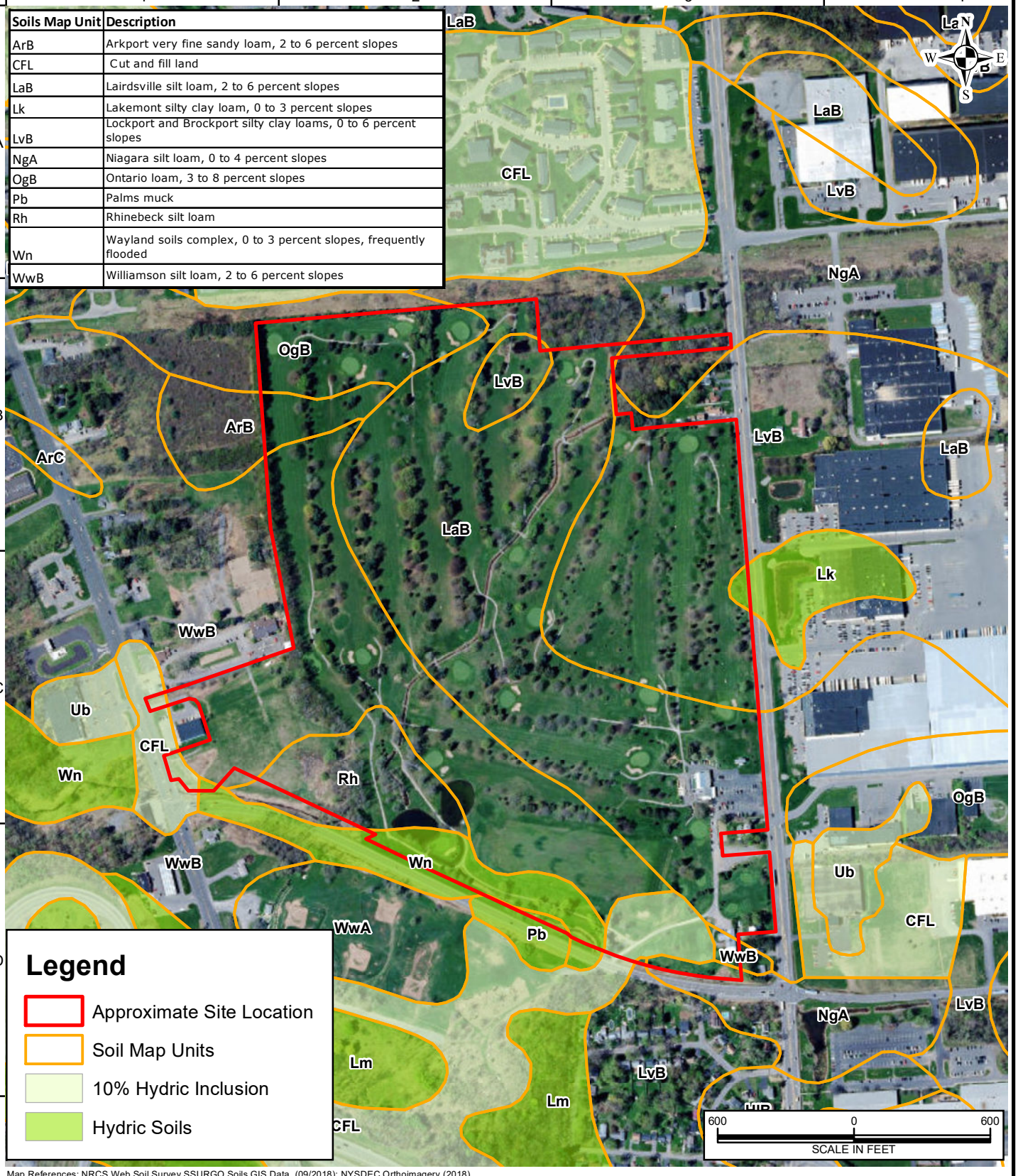
Drawing Title
FEMA EFFECTIVE FIRM MAP

Project No. 100796101	Figure 7
Date 06/28/2019	
Scale 1" = 600'	
Drawn By MAD	

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 7 - FEMA Effective FIRM Map.mxd

Soils Map Unit	Description
ArB	Arkport very fine sandy loam, 2 to 6 percent slopes
CFL	Cut and fill land
LaB	Lairdsville silt loam, 2 to 6 percent slopes
Lk	Lakemont silty clay loam, 0 to 3 percent slopes
LvB	Lockport and Brockport silty clay loams, 0 to 6 percent slopes
NgA	Niagara silt loam, 0 to 4 percent slopes
OgB	Ontario loam, 3 to 8 percent slopes
Pb	Palms muck
Rh	Rhinebeck silt loam
Wn	Wayland soils complex, 0 to 3 percent slopes, frequently flooded
WwB	Williamson silt loam, 2 to 6 percent slopes



Map References: NRCS Web Soil Survey SSURGO Soils GIS Data, (09/2018); NYSDEC Orthoimagery (2018)

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Drawing Title
NRCS SOILS MAP

Project No.	100796101
Date	07/26/2019
Scale	1" = 600'
Drawn By	MAD
Figure	8

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure 9 - NRCS Soils Map.mxd

APPENDIX A

PHOTOGRAPH LOG AND PHOTOGRAPH LOCATION MAP

Map References: NYSDEC Orthoimagery (2018)

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Project

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ONONDAGA COUNTY NEW YORK

Drawing Title

PHOTOGRAPH LOCATION MAP

Project No. 100796101	Figure A
Date 07/26/2019	
Scale 1" = 500'	
Drawn By MAD	

Path: \\langan.com\data\PAR\data1\100796101\Project Data\ArcGIS\MXD\Natural_Resource_Figures\Figure A -Site Photographs.mxd

Photograph No. 1 – View of Wetland B near flag B22, facing west.

Photograph No. 2 – View of Wetland C near flag C17, facing east.

Photograph No. 3 – View of Pond D, facing southeast.

Photograph No. 4 – View of Pond F, facing east.

Photograph No. 5 – View of forested portion of Wetland E near flag E34, facing south.

Photograph No. 6 – View of Tributary of Onondaga Lake along the southern site boundary.

Photograph No. 7 – View of Stream A (Tributrary of Onondaga Lake) near flag G2, facing north.

Photograph No. 8 – View of Stream A (Tributary of Onondaga Lake) near flag G61, facing north.

Photograph No. 9 – View of Stream A (Tributary of Onondaga Lake) near flag G82, facing east.

Photograph No. 10 – View of Wetland H near flag H7, facing south.

Photograph No. 11 – View of Wetland I near flag I10, facing south.

Photograph No. 12 – View of Wetland J near flag J10, facing south.

Photograph No. 13 – View of Wetland K near flag K13, facing northeast.

Photograph No. 14 – View of Wetland L near flag L7, facing north.

Photograph No. 15 – View of Wetland M near flag M6, facing east.

Photograph No. 16 – View of Wetland N near flag N6, facing east.

Photograph No. 17 – View of Wetland P near flag P4, facing west.

ATTACHMENT A

FIELD DATA SHEETS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-B (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: NgA – Niagara silt loam, 0 to 4 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No X	**Within a Wetland?** **Yes** _____ **No X**
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the southern portion of the site in an upland area, near Wetland B. The area consists of turf grass mowed/maintained as part of the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): N/A
Water Table Present?	Yes ___	No X	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection

VEGETATION – Use scientific names of plants. Sampling Point: **DP-B UP**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Turf Grass	100%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-B UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 8	7.5YR 4/3	100%					Silt Loam	
8 - 16+	7.5YR 4/3	85%	7.5YR 5/6	15%	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-B (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: NgA – Niagara silt loam, 0 to 4 percent slopes NWI classification: PEM5F

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID: Wetland B

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag B19. This area is a wetland ditch.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- **X** Surface Water (A1)
- **X** High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- **X** Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- **X** Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- **X** Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes **X** No ____	Depth (inches): 6"-10"
Water Table Present?	Yes **X** No ____	Depth (inches): At surface
Saturation Present? (includes capillary fringe)	Yes **X** No ____	Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: 6" – 10" of standing water, a high water table, soil saturation at the surface, water marks, sediment deposits, drift deposits, inundation visible on aerial imagery, a thin muck surface, drainage patterns and microtopographic relief.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-B WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Common Reed (*Phragmites australis.)*	95%	Y	FACW
2. Cattail (*Typha angustifolia*)	15%	N	OBL
3. Jewelweed (*Impatiens capensis*)	15%	N	FACW
4. Smartweed (*Persicaria* spp.)	10%	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	135% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland vegetation was comprised of herbaceous species dominated by common reed.

SOIL Sampling Point: **DP-B WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 7	7.5YR 3/2	94%	7.5YR 4/4	6%	C	M	Silty Clay	Saturated
7 - 10	7.5YR 5/2	88%	7.5YR 5/8	12%	C	M	Silty Clay	Saturated
10 - 16+	2.5Y 5/2	80%	2.5Y 5/6	20%	C	M	Silty Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- **X** Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix and Redox Dark Surface.

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/11/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-C1 (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Wn – Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No **X**	**Is the Sampled Area**	
Hydric Soil Present?	Yes _____ No **X**	**Within a Wetland?**	**Yes** _____ **No** **X**
Wetland Hydrology Present?	Yes _____ No **X**	If yes, optional Wetland Site ID:	_____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the southern portion of the site in an upland area, near Wetland C. The area consists of turf grass frequently mowed/maintained as part of the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No **X**	Depth (inches):	N/A
Water Table Present?	Yes ___ No **X**	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes ___ No **X**	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-C1 UP**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Turf grass	92%	Y	UPL
2. Timothy Grass (*Phleum pratense*)	8%	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-C1 UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 10	10YR 4/4	100%					Silt Loam	
10 - 16+	10YR 4/4	65%	10YR 5/4	35%			Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/11/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-C1 (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Wn – Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM5F/PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present? Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present? Yes **X** No _____	If yes, optional Wetland Site ID: Wetland C

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag C41. This area is a wetland ditch with some adjacent herbaceous wetlands.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- **X** Surface Water (A1)
- **X** High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- **X** Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- **X** Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- **X** Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes **X** No ____ Depth (inches): 6"-10"

Water Table Present? Yes **X** No ____ Depth (inches): At surface

Saturation Present? (includes capillary fringe) Yes **X** No ____ Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: 6" – 10" of standing water, a high water table, soil saturation at the surface, water marks, sediment deposits, drift deposits, inundation visible on aerial imagery, a thin muck surface, drainage patterns and microtopographic relief.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-C1 WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Common Reed (*Phragmites australis)*	95%	Y	FACW
2. Swamp Thistle (*Cirsium muticum*)	10%	N	OBL
3. Jewelweed (*Impatiens capensis*)	10%	N	FACW
4. Rough avens (*Geum laciniatum*)	5%	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland vegetation was comprised of herbaceous species dominated by common reed.

SOIL Sampling Point: **DP-C1 WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 – 2	10YR 2/1	100%					Silty	Saturated Organics
2 - 14+	10YR 2/1	100%					Silty/Muck	Saturated Silty Muck/Organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- X Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

Indicators of hydric soils include a Black Histic.

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/11/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-C2 (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Wn – Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No **X**	**Is the Sampled Area**
Hydric Soil Present? Yes _____ No **X**	**Within a Wetland?** **Yes** _____ **No** **X**
Wetland Hydrology Present? Yes _____ No **X**	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the southern portion of the project site in an upland area, near Wetland C. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): N/A

Water Table Present? Yes ___ No **X** Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-C2 UP**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. Willow Oak (*Quercus phellos*)	30%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	30% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Turf grass	100%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	130	(A)	560 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course. Prevalence index >3.

SOIL Sampling Point: **DP-C2 UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 9	10YR 5/4	100%					Silt Loam	
9+								Stony Refusal/Compact Refusal

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/11/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-C2 (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Wn – Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM5F/PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**	
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?**	**Yes X No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID:	Wetland C

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag C45. This area is an herbaceous wetland adjacent to a wetland ditch.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- **X** Surface Water (A1)
- ____ High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes **X** No ____	Depth (inches):	0"-1"
Water Table Present?	Yes ____ No **X**	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes **X** No ____	Depth (inches):	At Surface

Wetland Hydrology Present? **Yes X No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: 0" – 1" of standing water, soil saturation at the surface, water marks, sediment deposits, drainage patterns and microtopographic relief.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-C2 WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Eastern Cottonwood (*Populus deltoides*)	15%	Y	FAC
2. Willow Oak (*Quercus phellos*)	10%	Y	FACW
3.			
4.			
5.			
6.			
7.			
	25% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Common Reed (*Phragmites australis)*	50%	Y	FACW
2. Maintained grasses (mowed) (*Fescue* spp.)	50%	Y	FAC
3. Jewelweed (*Impatiens capensis*)	20%	N	FACW
4. Swamp Milkweed (*Asclepias incarnate*)	10%	N	OBL
5. Narrowleaf Cattail (*Typha angustifolia*)	5%	N	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	135% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland vegetation was comprised of herbaceous species dominated by common reed.

SOIL Sampling Point: **DP-C2 WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 9	10YR 4/2	85%	7.5YR 5/6	15%	C	M	Silty Clay	Saturated
9 - 15+	7.5YR 4/2	90%	7.5YR 5/6	10%	C	M	Silty Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
__X__ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** __X__ **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix.

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/11/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-E1 (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Rh – Rhinebeck silt loam NWI classification: PFO1E/PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present? Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present? Yes **X** No _____	If yes, optional Wetland Site ID: Wetland E

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag E42. This area is a forested wetland with a dense herbaceous understory.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- **X** Surface Water (A1)
- ____ High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes **X** No ____ Depth (inches): 0"-1"

Water Table Present? Yes ____ No **X** Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes **X** No ____ Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: 0" – 1" of standing water, soil saturation at the surface, water marks, sediment deposits, drainage patterns and microtopographic relief.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-E1 WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash (*Fraxinus pennsylvanica*)	75%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	75% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Lizard's Tail (*Saururus cernuus)*	60%	Y	OBL
2. Swamp Goldenrod (*Solidago patula*)	20%	Y	OBL
3. Common reed (*Phragmites australis*)	15%	N	FACW
4. Jewelweed (*Impatiens capensis*)	15%	N	FACW
5. Gray's Sedge (*Carex grayi*)	15%	N	FACW
6. Green Bulrush (*Scirpus atrovirens*)	10%	N	OBL
7. Eastern Poison Ivy (*Toxicodendron radicans*)	10%	N	FAC
8.			
9.			
10.			
11.			
12.			
	145% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- **X** Rapid Test for Hydrophytic Vegetation
- **X** Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland vegetation was comprised of a variety of herbaceous species.

SOIL Sampling Point: **DP-E1 WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 7	10YR 3/2	88%	10YR 5/6	12%	C	M	Silty Clay	Saturated
7 – 16+	10YR 4/1	85%	10YR 5/6	15%	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- **X** Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix and a Redox Dark Surface.

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/11/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-E2 (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Wn – Wayland soils complex, 0 to 3 percent slopes, frequently flooded NWI classification: PEM5F/PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID: Wetland E

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag E64. This area is a wetland ditch (a.k.a. Tributary to Onondaga Lake).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- **X** Surface Water (A1)
- **X** High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- **X** Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- **X** Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- **X** Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes **X** No ____	Depth (inches): 6"-10"
Water Table Present?	Yes **X** No ____	Depth (inches): At surface
Saturation Present? (includes capillary fringe)	Yes **X** No ____	Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: 6" – 10" of standing water, a high water table, soil saturation at the surface, water marks, sediment deposits, drift deposits, inundation visible on aerial imagery, a thin muck surface, drainage patterns and microtopographic relief.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-E2 WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Silky Dogwood (*Cornus amomum)*	10%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		

Herb Stratum (Plot size: 5')			
1. Common Reed (*Phragmites australis)*	100%	Y	FACW
2. Jewelweed (*Impatiens capensis*)	10%	N	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- X Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland vegetation was comprised of herbaceous species dominated by common reed.

SOIL Sampling Point: **DP-E2 WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 3	10YR 2/1	100%					Silty	Saturated Organics
3 - 14+	10YR 2/1	100%					Silty/Muck	Saturated Silty Muck/Organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- _X_ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _X_ **No** ____

Remarks:

Indicators of hydric soils include a Black Histic.

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-H (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Rh – Rhineback silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No **X**	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No **X**	**Within a Wetland?** **Yes** _____ **No** **X**
Wetland Hydrology Present?	Yes _____	No **X**	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the southwestern portion of the site in an upland area, near Wetland H. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-H UP**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Turf grass	92%	Y	UPL
2. White clover (*Trifoilum repens*)	5%	N	FACU
3. Creeping Charlie (*Glechoma hederacea*)	3%	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

This is in a maintained lawn portion of the golf course next to a fairway.

SOIL Sampling Point: **DP-H UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 7	10YR 4/4	100%					SiL	Silt Loam
7-16+	10YR 4/4	60%	10YR 5/4	40%			SiL	Silt Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-H (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Rh – Rhineback silt loam NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation **X**, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present? Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present? Yes **X** No _____	If yes, optional Wetland Site ID: Wetland H

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag H12. This area is a maintained (mowed) herbaceous wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- **X** Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): N/A

Water Table Present? Yes ___ No **X** Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): N/A

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: water marks, sediment deposits, sparsely vegetated concave surface, drainage patterns and microtopographic relief. Wetland H drains directly into Stream A via overland flow.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-H WET**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Maintained Grasses (mowed) (*Fescue* spp.)	88%	Y	FAC
2. White Clover (*Trifolium repens)*	8%	Y	FACU
3. Common Plantain (*Plantago major)*	4%	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

X Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of maintained grasses (mowed) *Fescue* spp. Indicators of hydrology and hydric soils were met.

SOIL Sampling Point: **DP-H WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 7	10YR 4/2	90%	5YR 4/6	10%	C	M	Silty Loam	
7 – 10	10YR 6/6	65%					Silty Loam	
	10YR 6/3	35%					Silty Loam	
10 – 16+	Gley1 5/10Y	70%	10YR 6/6	12%	C	M	Clay	Dense Clay
	10YR 4/1	18%					Clay	Dense Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- **X** Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Loamy Gleyed Matrix and a Depleted Matrix.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-I (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Elevated Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Rh – Rhineback silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No X	**Within a Wetland?** **Yes** _____ **No X**
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the southwestern portion of the project site in an upland area, near Wetland I. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-I UP**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Turf grass	100%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-I UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 12+	7.5YR 4/3	40%	7.5YR 4/4	15%			Clay Loam	Gravel present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-I (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Rh – Rhineback silt loam NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation **X**, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X**	No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X**	No _____	If yes, optional Wetland Site ID: Wetland I

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag I7. This area is a maintained (mowed) herbaceous wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes **X**	No ___	Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: soil saturation at the surface, water marks, sediment deposits, drainage patterns and microtopographic relief. Wetland I either drains directly into a stone rip-rapped swale that drains directly into Stream A or overland flows into Wetland H.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-I WET**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Maintained Grasses (mowed) (*Fescue* spp.)	100%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

X Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of maintained grasses (mowed) *Fescue* spp. Indicators of hydrology and hydric soils were met.

SOIL

Sampling Point: **DP-I WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 12+	10YR 3/1	85%	7.5YR 5/6	15%	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- **X** Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix and Redox Dark Surface.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-J (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: Wwb – Williamson silt loam, 2 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No X	**Within a Wetland?** **Yes** _____ **No** **X**
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the southwestern portion of the project site in an upland area, near Wetland J. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-J UP**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Turf grass	85%	Y	UPL
2. White clover (*Trifoilum repens*)	12%	N	FACU
3. Dandelion (*Taraxacum officinale*)	3%	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-J UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 4	7.5YR 4/3	100%					ScL	
4 - 15+	10YR 5/4	90%	10YR 6/6	10%	C	M	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-J (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: WwB – Williamson silt loam, 2 to 6 percent slopes NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation **X**, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID: Wetland J

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag J7. This area is a maintained (mowed) herbaceous wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No **X**	Depth (inches): N/A
Water Table Present?	Yes ___ No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes **X** No ___	Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: soil saturation at the surface, water marks, sediment deposits, drainage patterns and microtopographic relief. Wetland J drains via overland flow into Stream A.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-J WET**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Maintained Grasses (mowed) (*Fescue* spp.)	100%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__X__ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** __X__ **No** _____

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of maintained grasses (mowed) *Fescue* spp. Indicators of hydrology and hydric soils were met.

SOIL Sampling Point: **DP-J WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 4	7.5YR 4/2	92%	7.5YR 4/6	8%	C	M	Silty Clay	Saturated
4 – 15+	Gley 1 3/1	92%	7.5YR 4/6	8%	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- **X** Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** **X** **No** ___

Remarks:

Indicators of hydric soils include a Loamy Gleyed Matrix and a Depleted Matrix.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-K (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Knoll Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LaB– Lairdsville Silt Loam, 2 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No X	**Within a Wetland?** **Yes** _____ **No** **X**
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the middle portion of the project site in an upland area, near Wetland K. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection. Located on a knoll.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-K UP**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash (*Fraxinus pennsylvanica*)	30%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	30% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Turf grass	88%	Y	UPL
2. White Clover (*Trifolium repens*)	10%	N	FACU
3. Dandelion (*Taraxacum officinale*)	2%	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	12	x 4 =	48
UPL species	88	x 5 =	440
Column Totals:	130	(A)	548 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course. Prevalence index > 3.

SOIL

Sampling Point: **DP-K UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 8	7.5YR 4/3	85%					Loam	
8 - 15+	7.5YR 4/4	60%					Loam	Mixed Matrix
	7.5YR 5/4	40%					Loam	Mixed Matrix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-K (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LaB – Lairdsville silt loam, 2 to 6 percent slopes NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation **X**, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID: Wetland K

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag K15. This area is a maintained (mowed) herbaceous wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- **X** Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No **X**	Depth (inches): N/A
Water Table Present?	Yes ___ No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes **X** No ___	Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: soil saturation at the surface, water marks, sediment deposits, sparsely vegetated concave surface, drainage patterns and microtopographic relief. Wetland K drains into Stream A via two 8-inch CMP inlet/drainage pipe.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-K WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Green ash (*Fraxinus pennsylvanica*)	40%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Maintained Grasses (mowed) (*Fescue* spp.)	100%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

X Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of maintained grasses (mowed) *Fescue* spp. and includes nearby green ash trees. Indicators of hydrology and hydric soils were met.

SOIL Sampling Point: **DP-K WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 11	10YR 3/2	85%	10YR 3/4	15%	C	M	Silty Clay	Saturated
11 – 16+	10YR 4/1	60%	10YR 3/4	15%	C	M	Silty Clay	Saturated
	10YR 3/1	25%						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- **X** Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix and a Redox Dark Surface.

\\langan.com\data\PAR\data1\100796101\Project Data_Discipline\Natural Resources\Reports\Attachment A - Field Data Sheets\DP-K (WET)_Near K15.docx

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-L (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LaB– Lairdsville Silt Loam, 2 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No X	**Within a Wetland?** **Yes** _____ **No** **X**
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the middle portion of the project site in an upland area, near Wetland L. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-L UP**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Turf grass	100%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-L UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 7	10YR 5/3	100%					Silt Loam	
7 - 15+	10YR 4/4	60%					Silt Loam	Mixed Matrix (Very Dry)
	7.5YR 5/6	40%					Silt Loam	Mixed Matrix (Very Dry)

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-L (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LaB – Lairdsville silt loam, 2 to 6 percent slopes NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation **X**, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID: Wetland L

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag L6. This area is a maintained (mowed) herbaceous wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- **X** Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- **X** Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No **X**	Depth (inches): N/A
Water Table Present?	Yes ___ No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___ No **X**	Depth (inches): N/A

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: water marks, sediment deposits, sparsely vegetated concave surface, surface soil cracks, drainage patterns and microtopographic relief. Wetland L drains into Stream A via an 8-inch CMP inlet/drainage pipe.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-L WET**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Maintained Grasses (mowed) (*Fescue* spp.)	97%	Y	FAC
2. Narrowleaf cattail (*Typha angustifolia*)	3%	N	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

_X_ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of maintained grasses (mowed) *Fescue* spp. Indicators of hydrology and hydric soils were met.

SOIL Sampling Point: **DP-L WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 5	10YR 4/2	88%	7.5YR 4/6	12%	C	M	SCL	Silty Clay Loam
5 – 15+	7.5YR 4/2	60%	7.5YR 5/6	15%	C	M	SCL	Silty Clay Loam
	7.5YR 3/1	25%						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-M (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): None Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LvB – Lockport and Brockport Silty Clay Loams, 0 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes _____	No X	**Within a Wetland?** **Yes** _____ **No X**
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the northern portion of the project site in an upland area, near Wetland M. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No **X**	Depth (inches): N/A
Water Table Present?	Yes ___	No **X**	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes ___	No **X**	Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-M UP**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Turf grass	100%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-M UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 4	7.5YR 3/2	100%					Silt Loam	
4 - 15+	7.5YR 3/3	95%	7.5YR 4/4	5%	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-M (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LaB – Lairdsville silt loam, 2 to 6 percent slopes NWI classification: PEM1E/PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present?	Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present?	Yes **X** No _____	If yes, optional Wetland Site ID: Wetland M

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag M2. This area is partially maintained (mowed) herbaceous wetland and also a forested wetland that extends offsite.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- **X** Surface Water (A1)
- **X** High Water Table (A2)
- **X** Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- **X** Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- **X** Water-Stained Leaves (B9)
- **X** Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes **X** No ____	Depth (inches): 4" – 6"
Water Table Present?	Yes **X** No ____	Depth (inches): At Surface
Saturation Present? (includes capillary fringe)	Yes **X** No ____	Depth (inches): At Surface

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: 4 – 6 inches of standing water, a high water table, soil saturation at the surface, water marks, sediment deposits, inundation visible on aerial imagery, water-stained leaves, aquatic fauna, drainage patterns and microtopographic relief. Wetland M drains easterly offsite into a wooded area via overland flow.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-M WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple (*Acer saccharinum*)	35%	Y	FACW
2. Eastern Cottonwood (*Populus deltoides*)	30%	Y	FAC
3.			
4.			
5.			
6.			
7.			
	65% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. American mannagrass (*Glyceria grandis*)	60%	Y	OBL
2. Common Spikerush (*Eleocharis palustris*)	35%	Y	OBL
3. Maintained Grasses (mowed) (*Fescue* spp.)	25%	N	FAC
4. Pickerelweed (*Pontederia cordata*)	20%	N	OBL
5. Red Maple Herbs (*Acer rubrum*)	30%	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	170% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of a mix of herbaceous wetland species and silver maple and eastern cottonwood trees.

SOIL Sampling Point: **DP-M WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 5	10YR 4/2	88%	10YR 5/6	12%	C	M	Clay	Saturated
5 – 15+	10YR 3/1	85%	10YR 5/6	15%	C	M	Clay	Saturated

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- **X** Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** **X** **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix and Redox Dark Surface.

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-N (UP)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 0 - 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LvB – Lockport and Brockport Silty Clay Loams, 0 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X	**Is the Sampled Area**
Hydric Soil Present? Yes _____ No X	**Within a Wetland?** **Yes** _____ **No X**
Wetland Hydrology Present? Yes _____ No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in the northern portion of the site in an upland area, near Wetland N. Vegetation consists of maintained turf grass associated with the golf course.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): N/A

Water Table Present? Yes ___ No **X** Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): N/A

Wetland Hydrology Present? **Yes** _____ **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed during the site inspection.

VEGETATION – Use scientific names of plants.

Sampling Point: **DP-N UP**

Tree Stratum (Plot size: 30’)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15’)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5’)			
1. Turf grass	100%	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30’)			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation consists of maintained turf grass associated with the golf course.

SOIL Sampling Point: **DP-N UP**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 12+	7.5YR 5/4	100%					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No indicators of hydric soils were observed during the site inspection.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project /Site: Section 114, Block No. 1, Lot No. 2.3 / Section 24, Block No. 1, Lot Nos. 3.2, 4.2, 37.1 and 37.2

City/County: Town of Clay and Town of Salina / Onondaga County Sampling Date: 07/12/2019

Application/Owner: TC Syracuse Development Associates, LLC State: NY Sampling Point: DP-N (WET)

Investigator(s): CA Section, Township, Range: Town Of Clay and Town of Salina

Landform (hillslope, terrace, etc.): Flat area Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR L Lat: 43.1220438° N Long: -76.2095833° W Datum: NYSPCS Central NAD 83

Soil Map Unit Name: LaB – Lairdsville silt loam, 2 to 6 percent slopes NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (if no, explain in Remarks.)

Are Vegetation **X**, Soil _____, or Hydrology _____ significantly disturbed? **Yes** Are "Normal Circumstances" present? Yes **X** No _____

Are Vegetation _____, Soil _____, or Hydrology _____ significantly problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes **X** No _____	**Is the Sampled Area**
Hydric Soil Present? Yes **X** No _____	**Within a Wetland?** **Yes X** **No** _____
Wetland Hydrology Present? Yes **X** No _____	If yes, optional Wetland Site ID: Wetland N

Remarks: (Explain alternative procedures here or in a separate report.)

This data point was taken in a wetland area near flag N1. This area is a maintained (mowed) herbaceous wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- **X** Water Marks (B1)
- **X** Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- **X** Sparsely Vegetated Concave Surface (B8)
- **X** Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- **X** Surface Soil Cracks (B6)
- **X** Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- **X** Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): N/A

Water Table Present? Yes ___ No **X** Depth (inches): N/A

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): N/A

Wetland Hydrology Present? **Yes X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Indicators of wetland hydrology observed during the site inspection include: water marks, sediment deposits, sparsely vegetated concave surface, water-stained leaves, surface soil cracks, drainage patterns and microtopographic relief. Wetland N drains into Wetland M via overland flow.

VEGETATION – Use scientific names of plants. Sampling Point: **DP-N WET**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple (*Acer saccharinum*)	25%	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	25% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Maintained Grasses (mowed) (*Fescue* spp.)	65%	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65% = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

X Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks: (Include photo numbers here or on a separate sheet.)

This wetland area was comprised of maintained grasses (mowed) *Fescue* spp. and areas of bare soil. Silver maple trees were nearby the wetland. Indicators of hydrology and hydric soils were met.

SOIL Sampling Point: **DP-N WET**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 – 7	7.5YR 4/2	85%	7.5YR 4/6	15%	C	M	Silty Clay	
7 – 16+	7.5YR 3/1	80%	7.5YR 5/6	20%	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
__X__ Depleted Matrix (F3)
__X__ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** __X__ **No** ____

Remarks:

Indicators of hydric soils include a Depleted Matrix and Redox Dark Surface.

ATTACHMENT B

USACE JURISDICTIONAL DETERMINATION CHECKLIST

LANGAN

CHECKLIST OF INFORMATION INCLUDED WITH REQUESTS FOR JURISDICTIONAL DETERMINATIONS (JD)*

1. Names (including POC if a corporation or other entity), complete mailing addresses and phone numbers of the following:
   - CURRENT PROPERTY OWNER (include a letter granting ACOE access to review the parcel)
     - RH and RM Ajemian and Roberta Schmidt
       7209 Morgan Road
       Liverpool, NY 13090

       Ajemian Properties LLC
       7209 Morgan Road
       Liverpool, NY 13090
   - APPLICANTS (Project Sponsors)

     TC Syracuse Development Associates, LLC
     300 Conshohocken State Road, Suite 250
     West Conshohocken, PA 19428
   - WETLAND DELINEATOR (Consultant)
     - Robert March/Craig Amundson – Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
       300 Kimball Drive – 4th Floor, Parsippany, NJ 07054. Phone # (973) 560-4900

2. 8 1/2-inch x 11-inch Size Location Map (preferably a copy of the USGS Quad or DEC Wetlands Map with site identified on it), coordinates of the approximate center point of site AND of each potentially jurisdictional waters of the U.S. feature on the site (either Latitude/Longitude or UTM Grid Coordinate), showing the stream orders of all streams in the vicinity of the site AND the location of each stream reach associated with the project review area. Please provide the coordinates of the start and end points of these reaches, and identify them as traditionally navigable waters [TNWs], non-navigable perennial relatively permanent waters [perennial RPWs], non-navigable seasonal relatively permanent waters [seasonal RPWs], or non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally [non-RPWs]
   - Please see Figure 1 – USGS Site Location Map, Figure 5 – NYDEC Freshwater Wetlands and Waters Map, Figure 6 – National Wetlands Inventory Map, and Drawings WL100-104 (USACE Jurisdictional Determination Plans).

3. Cover letter describing the purpose of the request, a general description of the proposed project, the size (acres) of the parcel, and the size of the limits of the project site or review area (if smaller than the parcel)**
   - Please see Cover Letter of application and Section 1.0 of the application.
4. Delineation report, including the following supporting information:
   - Description of any current and/or historic land uses on the site
     - Please see Section 1.0 of the application.
   - DEC Wetlands Maps, NWI Maps, Soil Survey Maps
     - See Figure 5, Figure 6 and Figure 8 respectively in the application for the above maps.
   - Watershed size, drainage area size (for each stream reach), average annual rainfall/snowfall
     - Drainage Area Size to Onsite: ±1044 sq. miles per USGS StreamStats.
     - Average annual rainfall/snowfall: ±42 inches/year.
   - Discussion of whether tributaries (streams) on the site are TNWs, perennial RPWs, seasonal RPWs, or non-RPWs. Include a description of general flow patterns, volume and frequency ***
     - The tributary of Onondaga Lake located onsite is a perennial Relatively Permanent Water (RPW) that flows southwest towards Oswego Road and ultimately to Onondaga Lake.
   - Description of whether each wetland on the site either abuts or is adjacent to a tributary, identify which tributary (e.g. Wetland A directly abuts an unnamed tributary to Kayaderosseras Creek), and provide a discussion of the justification for this determination
     - Please see Section 2.2 of the application and the table on Drawing WL100 (Overall USACE Jurisdictional Determination Plan) for descriptions of the wetlands and waters.
   - Description of tributary connections to a TNW for each aquatic resource on the site, including a discussion of wetland and/or other connections (e.g. Wetland B connects to Wetland A via a culvert under Elm St. Wetland B abuts an unnamed tributary to Kayaderosseras Creek, which is a TNW)
     - Please see Section 2.2 of the application and the Table on Drawing WL100 (Overall USACE Jurisdictional Determination Plan) for descriptions of the wetlands and waters.
   - River miles to a TNW
     - Offsite (Onondaga Lake): 1.4 Miles
   - Aerial (straight) miles to a TNW
     - Offsite (Onondaga Lake): 0.97 Miles
   - Description of tributary substrate composition (e.g. silts, sands, gravel, etc.)
     - Tributary of Onondaga Lake is comprised of silts and concrete/rip-rap slopes and channel bottom.

- Identify potential pollutants
  - Potential pollutants are unknown.
- Identify potential habitat for species
  - Waters and wetlands onsite may provide habitat for birds, fish, amphibians and reptiles.
- Justification for proposed "isolated" (SWANCC) or non-jurisdictional determinations on any wetlands or streams
  - Please see Section 3.0 of the application.
- Description of vegetative cover types on the site
  - Please see Section 1.0 and Section 2.2 of the application and the Table on Drawing WL100 (Overall USACE Jurisdictional Determination Plan) for descriptions of the cover types onsite.
- Wetland Delineation Forms for each cover type
  - See Attachment A – Field Data Sheets for a description of the vegetation.
- Color photographs of all representative areas of the site (taken during the growing season), including any connections between tributaries or between tributaries and wetlands
  - Please see Appendix A of the application for the Photograph Log and Photograph Location Map.

5. Surveyed delineation drawing, including the following:
   - Title block, including drawing date, scale, revision dates, north arrow, existing topographic contours (if available), benchmarks, and the stamp of a licensed surveyor or a narrative describing how the GPS data were obtained
   - Boundary lines of the parcel, AND of the project site, clearly marked with the acres shown on the drawing
   - Delineation flags shown as points that are connected by straight lines (or extend off-site at parcel boundaries), and are identified on the drawing with the corresponding number and/or letter that is written on the flag in the field ****
   - Appropriate hatching and/or shading to identify the extent of waters of the US, including jurisdictional wetlands, and any "isolated" or non-jurisdictional waterbodies or wetlands
   - All defined tributaries on the site, identified either via flagging or a standard tributary symbol that is in the legend, and locations of any other connections between waters (e.g. culverts, ditches and/or swales)
   - Table outlining the acres of the waters of the US, and "isolated" or non-jurisdictional waters, in addition to the linear feet of all tributaries within the boundaries of the project site or parcel.
     - Please see Drawings WL100-104 (USACE Jurisdictional Determination Plans) for the above requirements.

*** A JD is a determination of the extent of jurisdictional waterbodies and/or wetlands within the boundaries of a parcel of land *or a project site***
**** A project site is the limits of all lands expected to be disturbed for a single and complete project, or the initial phases of a phased project such as a subdivision**
***** For seasonal RPWs, non-RPWs and wetlands adjacent to RPWs and non-RPWs that require a significant nexus determination, please also provide information regarding whether the stream and/or wetland has more than an insubstantial or speculative effect on the chemical, physical and/or biological integrity of TNWs, such as a functional assessment of the aquatic resource functions that the stream and its adjacent wetlands provides**
****** Delineation flags may need to be replaced on a site prior to scheduling a site inspection with the ACOE**

ATTACHMENT C

POINT OF CONTACT INFORMATION

POINT OF CONTACT INFORMATION

Property Owner:

RH and RM Ajemian and Roberta Schmidt
7209 Morgan Road
Liverpool, NY 13090-4534
Phone: (315) 436-6742

Ajemian Properties LLC
7209 Morgan Road
Liverpool, NY 13090-4534
Phone: (315) 436-6742

Applicant:

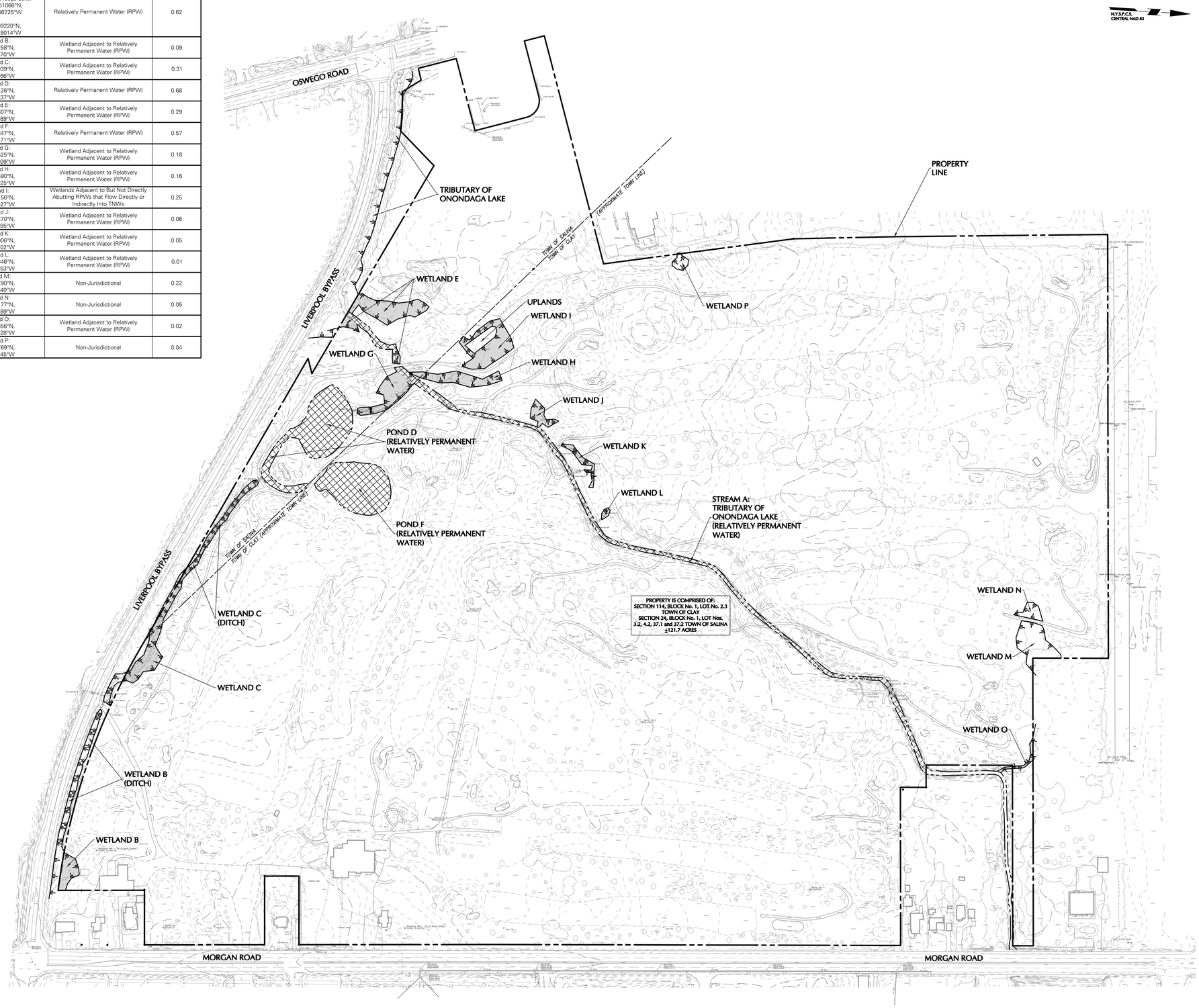
TC Syracuse Development Associates, LLC
Contact: George Laigaie
300 Conshohocken State Road, Suite 250
West Conshohocken, PA 19428
Phone: (484) 530-4722
Email: glaigaie@trammellcrow.com

Consultant / Wetland Delineator:

Robert March, P.W.S.
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
300 Kimball Drive, 4th Floor
Parsippany, NJ 07054
Phone: (973) 560-4900

DRAWINGS

Identified Feature	Wetland Type (Cowardin Classification)	Coordinates (Centerpoint)	Waters of U.S. Classification	Area (Acres)
Stream A Tributary of Onondaga Lake	R2RB2	Tributary of Onondaga Lake: Start: 43.125106°N, 76.2056725°W End: 43.1199220°N, 76.2149014°W	Relatively Permanent Water (RPW)	0.62
Wetland B	PEM5F	Wetland B: 43.1175258°N, 76.2067670°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.09
Wetland C	PEM5F/PEM1E	Wetland C: 43.1183039°N, 76.2091766°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.31
Pond D	PUBHh	Wetland D: 43.1194126°N, 76.2110237°W	Relatively Permanent Water (RPW)	0.68
Wetland E	PFO1E/PEM1E	Wetland E: 43.1198807°N, 76.2122889°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.29
Pond F	PUBHh	Wetland F: 43.1196847°N, 76.2103471°W	Relatively Permanent Water (RPW)	0.57
Wetland G	PFO1E/PEM5F	Wetland G: 43.1199525°N, 76.2114009°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.18
Wetland H	PEM1E	Wetland H: 43.1204590°N, 76.2115825°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.16
Wetland I	PEM1E	Wetland I: 43.1207156°N, 76.2118927°W	Wetlands Adjacent to But Not Directly Abutting RPWs that Flow Directly or Indirectly Into TNWs	0.25
Wetland J	PEM1E	Wetland J: 43.1211370°N, 76.2111895°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.06
Wetland K	PEM1E	Wetland K: 43.1215006°N, 76.2107402°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.05
Wetland L	PEM1E	Wetland L: 43.1216846°N, 76.2101953°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.01
Wetland M	PEM1E/PFO1E	Wetland M: 43.1251790°N, 76.2089640°W	Non-Jurisdictional	0.22
Wetland N	PEM1E	Wetland N: 43.1251177°N, 76.2093489°W	Non-Jurisdictional	0.05
Wetland O	PEM1E	Wetland O: 43.1250656°N, 76.2076528°W	Wetland Adjacent to Relatively Permanent Water (RPW)	0.02
Wetland P	PEM1E	Wetland P: 43.1221769°N, 76.2129645°W	Non-Jurisdictional	0.04



MAP REFERENCE:
STREET MAP PROVIDED BY ESRI WORLD STREET MAP BASEMAP SERVER (2019).

LEGEND:

- WETLAND BOUNDARY
- USACE JURISDICTIONAL WETLAND
- WATERS OF THE U.S.
- PROPERTY LINE

NOTES:

1. BOUNDARY, PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM A DRAWING ENTITLED "ALTA/ACSM LAND TITLE SURVEY – PROJECT EAGLE, BLOCK NO. 1, LOT NOS. 2.3, 3.2, 4.2, 28.1, 37.1 & 37.2 IN THE TOWN OF CLAY, ONONDAGA COUNTY, NEW YORK" PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. DATED 07/30/2019.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW YORK CENTRAL STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
3. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. WETLANDS AND WATERS WERE DELINEATED ONSITE BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. WETLAND SCIENTISTS BETWEEN 10 – 12 JULY 2019. WETLAND FLAG LOCATIONS SHOWN HEREON HAVE BEEN OBTAINED USING FIELD PROCEDURES THAT INCLUDE CODE-ONLY GPS/GNSS COMPATIBLE UNITS WITH EXTERNAL ANTENNAS AND OFFICE PROCEDURES THAT INCLUDE POST-PROCESSING OF THE COLLECTED FIELD DATA.

120 0 60 120
SCALE IN FEET

LANGAN PROJECT NO. 100796101

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

Date	Description	No.
REVISIONS		

SIGNATURE ANDREW IVES DATE SIGNED
PROFESSIONAL LAND SURVEYOR
NY Lic. No. 50794

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
PROJECT EAGLE
SECTION 114, BLOCK No. 1, LOT No. 2.3
TOWN OF CLAY
SECTION 24, BLOCK No. 1, LOT Nos. 3.2, 4.2, 37.1 and 37.2
TOWN OF SALINA
ONONDAGA COUNTY NEW YORK

Drawing Title
OVERALL USACE JURISDICTIONAL DETERMINATION PLAN

Project No. 100796101
Date 08/12/2019
Drawn By CAA
Checked By RM

Drawing No. WL100
Sheet 1 of 5

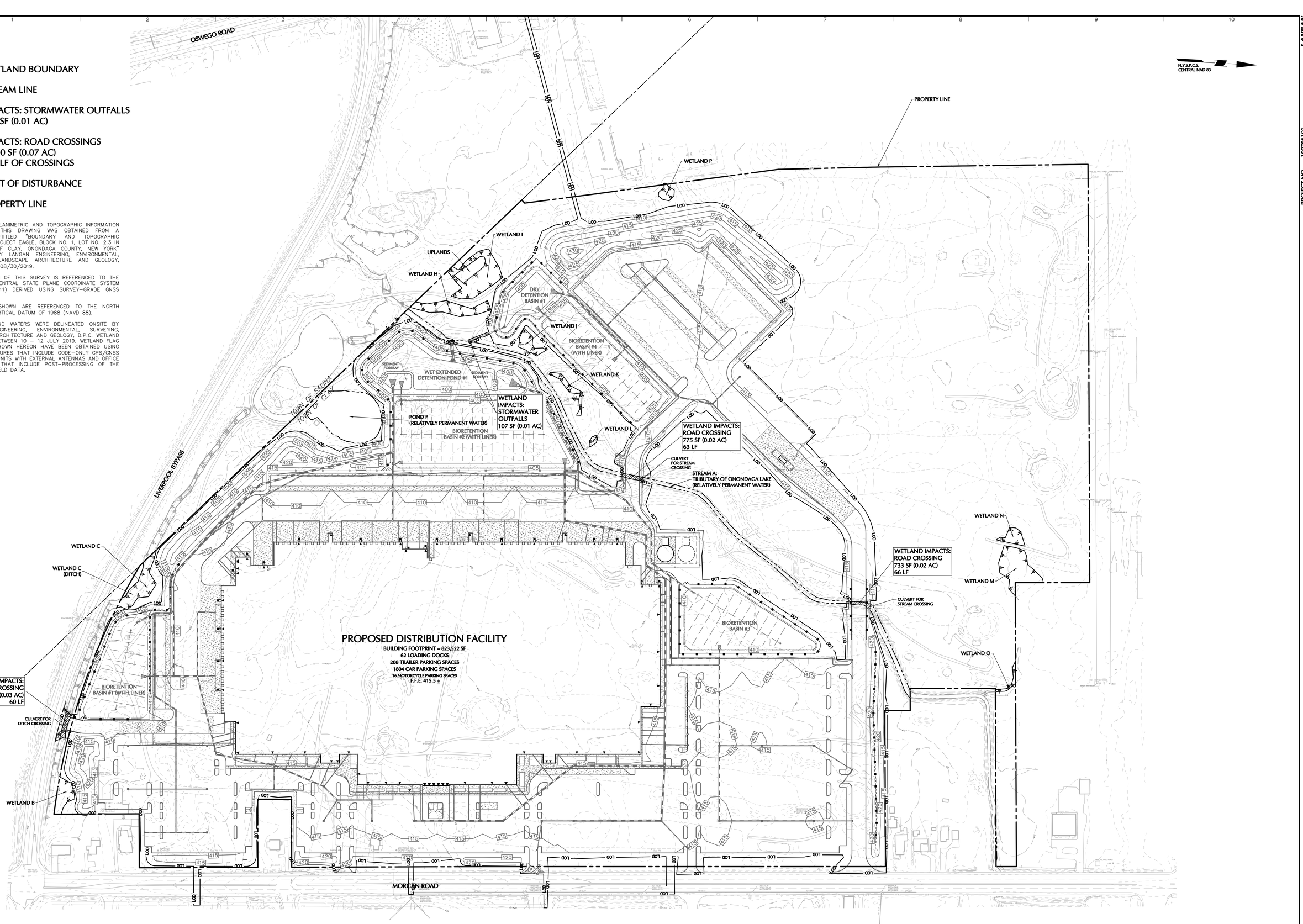
Filename: \\langan.com\data\PAR\data1\100796101\Project Data\CAD\01SheetFiles\Natural Resources\100796101-W-WL100 - USACE JD Plan.dwg Date: 8/12/2019 Time: 09:46 User: camundson Style Table: Langan.stb Layout: WL100 - USACE

LEGEND:

- WETLAND BOUNDARY
- STREAM LINE
- IMPACTS: STORMWATER OUTFALLS 107 SF (0.01 AC)
- IMPACTS: ROAD CROSSINGS 2,600 SF (0.07 AC) 189 LF OF CROSSINGS
- LOD — LIMIT OF DISTURBANCE
- PROPERTY LINE

NOTES:

1. BOUNDARY, PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM A DRAWING ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY – PROJECT EAGLE, BLOCK NO. 1, LOT NO. 2.3 IN THE TOWN OF CLAY, ONONDAGA COUNTY, NEW YORK" PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. DATED 08/30/2019.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW YORK CENTRAL STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY–GRADE GNSS EQUIPMENT.
3. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. WETLANDS AND WATERS WERE DELINEATED ONSITE BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. WETLAND SCIENTISTS BETWEEN 10 – 12 JULY 2019. WETLAND FLAG LOCATIONS SHOWN HEREON HAVE BEEN OBTAINED USING FIELD PROCEDURES THAT INCLUDE CODE–ONLY GPS/GNSS COMPATIBLE UNITS WITH EXTERNAL ANTENNAS AND OFFICE PROCEDURES THAT INCLUDE POST–PROCESSING OF THE COLLECTED FIELD DATA.



WARNING:
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100 0 50 100
SCALE: 1 IN = 100 FEET

Date	Description	No.
REVISIONS		

SIGNATURE DATE SIGNED

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
PROPOSED DISTRIBUTION FACILITY PROJECT
SECTION 114, BLOCK 1, LOT 2.3
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

Drawing Title
OVERALL WETLAND IMPACT PLAN

Project No.	Drawing No.
100796101	WP100
Date: 10/2/2019	
Drawn By: CAA	
Checked By: TLK	

LANGAN PROJECT NO. 100796101

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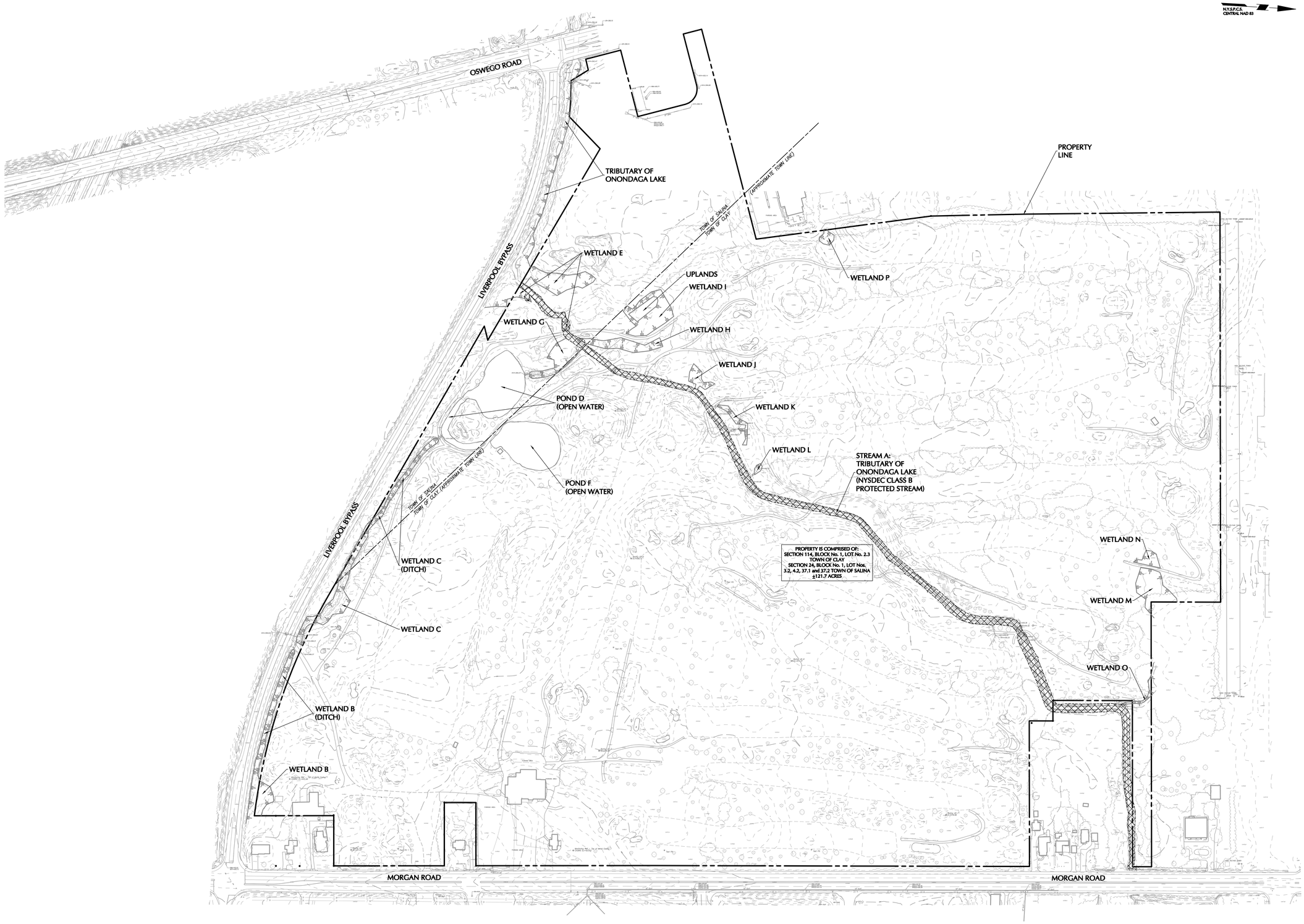

N.Y.S.P.C.S. CENTRAL NAD 83

MAP REFERENCE:
STREET MAP PROVIDED BY ESRI WORLD STREET MAP BASEMAP SERVER (2019).

LEGEND:

- TOP OF BANK
- NYSDEC PROTECTED WATER
- PROPERTY LINE
- WETLAND BOUNDARY (NYSDEC NON-JURISDICTIONAL)

NOTES:

1. BOUNDARY, PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM A DRAWING ENTITLED "ALTA/ACSM LAND TITLE SURVEY – PROJECT EAGLE, BLOCK NO. 1, LOT NOS. 2.3, 3.2, 4.2, 28.1, 37.1 & 37.2 IN THE TOWN OF CLAY, ONONDAGA COUNTY, NEW YORK" PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. DATED 07/30/2019.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW YORK CENTRAL STATE PLANE COORDINATE SYSTEM NAD 83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
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120 0 60 120
SCALE IN FEET

LANGAN PROJECT NO. 100796101

WARNING:
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Date	Description	No.
REVISIONS		

SIGNATURE ANDREW IVES DATE SIGNED
PROFESSIONAL LAND SURVEYOR
NY Lic. No. 50794

LANGAN
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Project
PROJECT EAGLE
SECTION 114, BLOCK No. 1, LOT No. 2.3
TOWN OF CLAY
SECTION 24, BLOCK No. 1, LOT Nos. 3.2, 4.2, 37.1 and 37.2
TOWN OF SALINA
ONONDAGA COUNTY NEW YORK

Drawing Title
OVERALL NYSDEC JURISDICTIONAL DETERMINATION PLAN

Project No.	Drawing No.
100796101	WL200
Date: 08/12/2019	
Drawn By: CAA	
Checked By: RM	Sheet 1 of 5

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